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ABSTRACT

This publication of suggested curriculum activities and nutrition recipes has been developed to help primary level teachers integrate nutrition topics into their existing curriculum. The recipes are designed so that 3- to 9-year-old children can cook with their teachers and in the process learn what constitutes good nutrition. In addition to activities and recipes related to each of the basic food groups, guidelines for teachers leading nutrition activities, evaluation guides, nutrition education background information, and a list of sources of nutrition-related materials are provided. (Author/RH)

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INTEGRATED NUTRITION EDUCATION and TRAINING

Ages 3-8

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FOREWORD

The Illinois State Board of Education is pleased to make available this publication of suggested curriculum activities and nutrition recipes.

It has been developed to help primary teachers integrate nutrition into their existing curriculum through cooking. The recipes are designed so that the children can cook with the teacher and learn good nutrition from the stove to the table.

This publication was written and compiled by Millie Sims, second grade teacher at Westview School in Champaign, Illinois. We are indebted to Ms. Sims for her assistance.

Donald G. Gill

Donald G. Gill
State Superintendent of Education

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AN EQUAL OPPORTUNITY PROGRAM - The Nutrition Education and Training Program of the U.S. Department of Agriculture is available to all individuals regardless of race, color, national origin, age, sex, or handicap. Persons who believe they have been denied equal opportunity for participation may write the Secretary of Agriculture, Washington, D.C., 20250.

INTRODUCTION

This booklet is structured upon two main goals. First, it seeks to stimulate nutritional thought and behavior of both educators and students through the implementation of diversified learning situations. The activities are enjoyable for the students and simple to implement for the teacher. Second, the booklet hopes to suggest to every teacher the ease with which nutrition information can be incorporated into the classroom.

The nutritional health-state of students affects their learning capacity. Eating patterns established early in life can have an effect on an individual's life-long mental and physical condition which ultimately affects the quality of their life. They should be equipped with basic nutrient information and research skills to decipher accurate information as it evolves among the unsound claims.

Especially with today's advertising efforts, healthy eating habits and accurate knowledge of food is not acquired without effort. Students need to be equipped with a nutrition education that will be pertinent throughout their lives. Most importantly the educator and student must acknowledge that what they eat affects their health and that as an individual, they are responsible for properly fueling their human machine.

The classroom activities supplied by this booklet support the following Illinois Nutrition Education and Training Act concepts. Whether these activities or those devised by educators and students are used, the goals will be satisfied if nutritional eating habits are stimulated through classroom activities.

ILLINOIS NUTRITION EDUCATION AND TRAINING ACT CONCEPTS

The Nutrition Education and Training Program in Illinois has identified these concepts as most important nutrition messages for students to comprehend. Please introduce and then summarize learning activities with one or more of them. If displayed on a large chart in the room, the concept(s) related to each activity can be easily pointed out by the students.

Physiological Facts

Nutrition is the way the body uses food. We eat food to live, to grow, to keep healthy and well, and to get energy for work and play.

Nutrients

Food is made up of different nutrients that work together and interact with body chemicals to serve the needs of the body. Many kinds and combinations of food can provide a nutritionally adequate diet.

Food Handling

The way food is handled influences the amounts of nutrients in food, its safety, quality, appearance, taste, acceptability, and cost.

Life Cycle

All persons throughout life have need for the same nutrients, but in varying amounts. The amount of nutrients needed is influenced by age, sex, activity and state of health.

Social/Psychological Aspects of Food

Food can be chosen to fulfill physiological needs and at the same time satisfy social, cultural, and psychological wants.

Food Technology

The nutrients, singly and in combinations of chemical substances simulating natural foods, are available in the market; these may vary widely in usefulness, safety of use and economy.

Nutrition and Society

Food plays an important role in the physical and psychological health of the society or a nation just as it does for the individual and family.

References:

Ullrich, Helen D. and Briggs, George M., "Improving Education Concerning Nutrition: The General Public," 1969 White House Conference on Food Nutrition and Health, pp. 175-187.

Mayer, Jean, ed. U.S. National Policies in the Seventies, San Francisco, W. H. Freeman and Company, 1973.

These concepts evolved from the Interagency Committee on Nutrition Education, 1964.

NUTRITION AND YOUR HEALTH
DIETARY GUIDELINES FOR AMERICANS

What should you eat to stay healthy?

Hardly a day goes by without someone trying to answer that question. Newspapers, magazines, books, radio, and television give us a lot of advice about what foods we should or should not eat. Unfortunately, much of this advice is confusing.

Some of this confusion exists because we don't know enough about nutrition to identify an "ideal diet" for each individual. People differ - and their food needs vary depending on age, sex, body size, physical activity, and other conditions such as pregnancy or illness.

In those chronic conditions where diet may be important - heart attacks, high blood pressure, strokes, dental caries, diabetes, and some form of cancer - the roles of specific nutrients have not been defined.

Research does seek to find more precise nutritional requirements and to show better the connections between diet and certain chronic diseases.

But today, what advice should you follow in choosing and preparing the best foods for you and your family?

The guidelines below are suggested for most Americans. They do not apply to people who need special diets because of diseases or conditions that interfere with normal nutrition. These people may require special instruction from trained dietitians, in consultation with their own physicians.

These guidelines are intended for people who are already healthy. No guidelines can guarantee health or well-being. Health depends on many things, including heredity, lifestyle, personality traits, mental health and attitudes, and environment, in addition to diet.

Food alone cannot make you healthy. But good eating habits based on moderation and variety can help keep you healthy and even improve your health.

DIETARY GUIDELINES FOR AMERICANS

-Eat a variety of foods
-Maintain ideal weight
-Avoid too much fat, saturated fat, and cholesterol
-Eat foods with adequate starch and fiber
-Avoid too much sugar
-Avoid too much sodium
-If you drink alcohol, do so in moderation

RECOMMENDED DAILY DIETARY ALLOWANCES

	Age	Weight (lbs)	Protein (g)	Vit. A (R.E*)	Vit. D (mg**)	Vit. E (mg T.E) (***)	Vit. C (mg)	Thiamin (mg)	Riboflavin (mg)	Niacin (N.E.) (****)	Vit. B_6 (mg)	Folacin (ug)	Vit. B_{12} (ug)	Calcium (mg)	Phos. (mg)	Mag. (mg)	Iron (mg)	Ziac (mg)	Iodine (ug)
Infants	To 6 mos.	13	kg x 2.2	420	10	3	35	0.3	0.4	6	0.3	30	0.5	360	240	50	10	3	40
	To 1 yr.	20	kg x 2.0	400	10	4	35	0.5	0.6	8	0.6	45	1.5	540	360	70	15	5	50
Children	1-3	29	23	400	10	5	45	0.7	0.8	9	0.9	100	2.0	800	800	150	15	10	70
	4-6	44	30	500	10	6	45	0.9	1.0	11	1.3	200	2.5	800	800	200	10	10	90
	7-10	62	34	700	10	7	45	1.2	1.4	16	1.6	300	3.0	800	800	250	10	10	120
Males	11-14	99	45	1000	10	8	50	1.4	1.6	18	1.8	400	3.0	1200	1200	350	18	15	150
	15-18	145	56	1000	10	10	60	1.4	1.7	18	2.0	400	3.0	1200	1200	400	18	15	150
	19-22	154	56	1000	7.5	10	60	1.5	1.7	19	2.2	400	3.0	800	800	350	10	15	150
	23-50	154	56	1000	5	10	60	1.4	1.6	18	2.2	400	3.0	800	800	350	10	15	150
	51 +	154	56	1000	5	10	60	1.2	1.4	16	2.2	400	3.0	800	800	350	10	15	150
Females	11-14	101	46	800	10	8	50	1.1	1.3	15	1.8	400	3.0	1200	1200	300	18	15	150
	15-18	120	46	800	10	8	60	1.1	1.3	14	2.0	400	3.0	1200	1200	300	18	15	150
	19-22	120	44	800	7.5	8	60	1.1	1.3	14	2.0	400	3.0	800	800	300	15	15	150
	23-50	120	44	800	5	8	60	1.0	1.2	13	2.0	400	3.0	800	800	300	18	15	150
	51 +	120	44	800	5	8	60	1.0	1.2	13	2.0	400	3.0	800	800	300	10	15	150
Pregnant			+30	+200	+5	+2	+20	+0.4	+0.3	+2	+0.6	+400	+1.0	+400	+400	+150	A	+5	+25
Lactating			+20	+400	+5	+3	+40	+0.5	+0.5	+5	+0.5	+100	+1.0	+400	+400	+150	A	+10	+50

A - The increased requirements during pregnancy and lactation cannot be met by the iron content of habitual American diets nor by the existing iron stores of many women; therefore the use 30-60 milligrams of supplemental iron is recommended.

ug. = Microgram

* Retinol equivalents

** Micrograms of cholecaloiflerol 10 ug. cholecalciferol = 400 I.U. Vit. D.

*** tocopherol equivalents

****Niocine equivalents

From: Recommended Dietary Allowances, Revised 1979. Food and Nutrition Board
National Academy of Sciences-National Research Council, Washington, D.C.

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NUTRIENT CHART

NUTRIENT	IMPORTANT SOURCES OF NUTRIENT	SOME MAJOR PHYSIOLOGICAL FUNCTIONS
MACRONUTRIENTS		
Protein	Meat, poultry, fish, dried beans and peas, eggs, nuts, cheese, milk	Furnishes amino acids necessary for the building and maintenance of body tissues; provides energy when carbohydrates and fats are lacking.
Carbohydrates	Cereal, cereal products, potatoes, beets, carrots, dried beans, squash, corn, bananas, dates, figs, bread, sugar	Supplies energy so protein can be used for growth and maintenance of body cells, contributes glucose for the brain and central nervous system.
Fat	Shortening, oil, butter, margarine, egg yolks, salad dressing, avocados, olives, nuts	Supplies energy, increases palatability of foods, supplies fatty acids which are essential to the diet.
Water	Water, milk, juices, fruits, vegetables, meats	Helps give structure and form to the body, gives aqueous environment necessary for cell metabolism, provides means for maintaining a stable body temperature.
FAT-SOLUBLE VITAMINS		
Vitamin A (Retinol)	Liver, eggs, dark green and deep yellow vegetables, sweet potatoes, cantaloupe, carrots, squash, butter, margarine	Aids in the prevention of night blindness, controls bone and teeth growth, aids in keeping skin clear and smooth, allows for healthy mucuous membranes and keeps them firm, healthy, and free from infection.
Vitamin D	Vitamin D milk, fish liver oils, eggs, sardines, salmon, tuna, sunshine on skin	Helps absorb calcium from the digestive tract and build calcium and phosphorus into bones and teeth.
Vitamin E	Corn oil, green leafy vegetables, wheat germ, liver, egg yolk, butter, milkfat	Acts as an antioxidant in protecting Vitamin A and unsaturated fatty acids from destruction by oxygen.
WATER-SOLUBLE VITAMINS		
Vitamin C (Ascorbic Acid)	Broccoli, cauliflower, oranges, grapefruits, lemons, limes, papayas, mangoes, stawberries, cantaloupe, tomatoes, green peppers	Makes walls of blood vessels firm, aids in formation of cementing materials that hold body cells together, aids in healing of wounds, broken bones, and possibly helps prevent infection.

NUTRIENT	IMPORTANT SOURCES OF NUTRIENT	SOME MAJOR PHYSIOLOGICAL FUNCTIONS
Thiamine (B_1)	Lean pork, liver, kidney, nuts, wheat germ, whole grain products, fish, poultry, eggs	Aids in the normal functioning of nervous system, plays essential role in digestion and absorption of carbohydrates.
Riboflavin (B_2)	Liver, heart, kidney, milk, cheese, fish, poultry, eggs, dark green vegetables, cottage cheese, dried beans	Enables the cells to better use oxygen, helps keep skin and lips healthy.
Niacin	Peanut butter, meat, poultry, fish, milk, enriched or whole grain breads and cereals, dried beans and peas	Aids in keeping nervous system, skin, mouth, tongue and digestive tract healthy, helps cells use other nutrients.
Vitamin B_6	Beef, liver, pork, ham, soybeans, lima beans, kale, bananas, spinach, avocado, whole grain cereals, potatoes	Lack of this vitamin could result in central nervous system disorders, is necessary for the normal metabolism of proteins.
Folic Acid	Green leafy vegetables, liver, kidney, whole grain cereals, yeast, mushrooms	Aids in the formation of normal blood cells, helps in the function of enzyme and other biochemical systems.
Vitamin B_{12}	Liver, meat, fish, shellfish, kidney, milk, milk products, eggs, poultry, vegetarian diets should include milk or a B_{12} supplement - (if no animal foods are used)	Aids in the formation of normal blood, helps in the maintenance of nerve tissue.
Biotin	Kidney and liver, milk and eggs, molasses, most fresh vegetables, nuts, grains	Regulates the use of carbohydrates and regulates the body in the formation and utilization of fatty acids.
MINERALS		
Calcium	Milk, yogurt, hard cheese, sardines and salmon with bones, collard, kale, mustard, dark green leafy vegetables	Essential in giving strength to bones and teeth, is necessary for clotting of blood, is an important function of normal muscle contraction, assists in response of nerve tissue to stimuli.
Iron	Enriched farina, prune juice, liver, dried beans and peas, red meat, egg yolk	Aids in the formation of hemoglobin which is the red substance in blood responsible for carring oxygen to and carbon dioxide from the cells, aids in the increasing resistance to infection, is involved in enzyme functioning of tissue respiration.
Iodine	Seafoods, iodized salt	Helps regulate the rate at which the body uses energy, aids in the prevention of goiter.

NUTRIENT	IMPORTANT SOURCES OF NUTRIENT	SOME MAJOR PHYSIOLOGICAL FUNCTIONS
Phosphorus	Milk and milk products, meat, poultry, fish, eggs, whole grain cereals, legumes	Helps utilize calcium to provide strong bones and teeth. Many internal activities are regulated by this mineral.
Magnesium	Legumes, whole grain cereals, milk, meat, seafood, nuts, eggs, green vegetables	Aids in carbohydrate regulation and production of energy within the cells, assists in making nerves and muscles work.
Zinc	Meat, liver, eggs, oysters, other seafoods, milk, whole grain cereals, peas, garbanzo beans	Assists in transporting carbon dioxide by the blood and helps to secrete hydrochloric acid in the process of digestion.
Copper	Seafood, meat, eggs, legumes, oysters, cocoa, whole grain cereals, nuts, raisins	Is required for utilizing iron in producing hemoglobin in the blood, is a part of several enzymes that occur in metabolic process.

Reference:

People, Food, and Science, by Patricia Cote, 1972, Ginn and Company.

Laurel's Kitchen, by Laurel Robertson, Carol Flinders, and Bronwen Godfrey, 1976, Nilgiri Press.

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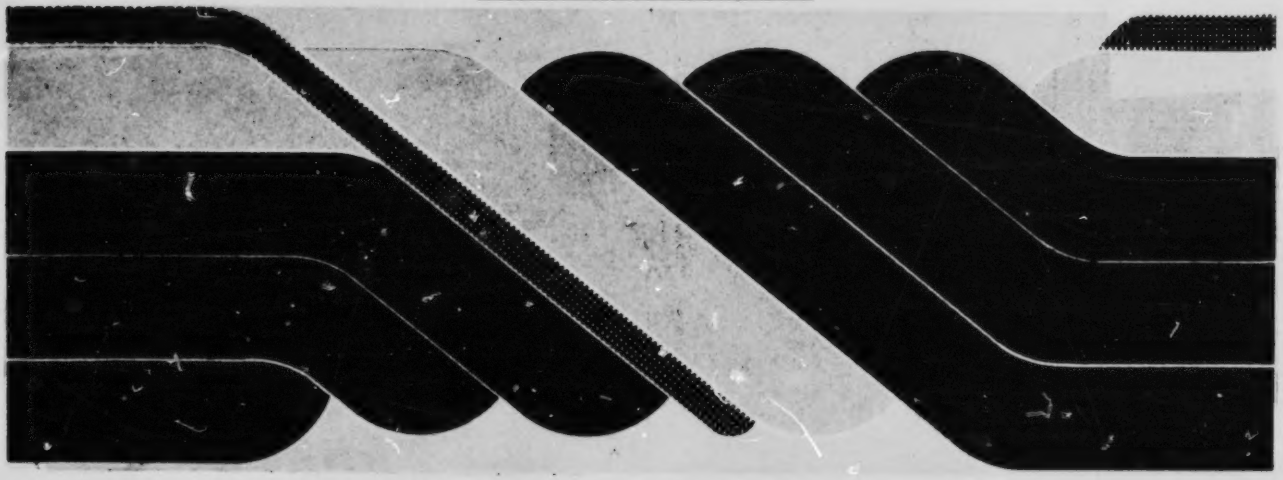
BASIC FOOD GROUPS



The food we consume can be categorized into five food groups. These groups of foods work together to make up a complete diet, just as a strong rope is composed of strands that intertwine and support each other. Each of the strands symbolize a food group. Four of these groups--Fruit-Vegetable, Bread-Cereal, Milk-Cheese, and Meat-Poultry--supply the vitamins, minerals, and protein, the nutrients the body needs, as well as calories. The fifth group--Fats-Sweets-Alcohol provides mainly calories and its nutritional contribution is more limited than that of other groups.

Servings and Calories

Lower	In-Between	Higher
1 cup raw vegetable salad without dressing (40)	3/4 cup raw vegetable salad with 1 tablespoon French dressing (95)	1/2 cup potato salad (125)
1/2 cup cooked cabbage (15)	1/2 cup coleslaw (60)	2 rolls stuffed cabbage (260)
1 medium baked potato (95)	2/3 cup mashed potatoes prepared with milk and butter (125)	1/2 cup hashed brown potatoes (170)
1 medium raw apple (80)	1 sweetened baked apple (160)	1/8 of 9-inch apple pie (300)
1/2 cup fresh citrus sections (40)	1/2 cup jellied citrus salad (120)	1/2 cup lemon pudding (145)
1/2 cup cooked green beans (15)	1/2 cup stir-fried green beans (35)	1/2 cup green bean-mushroom casserole (70)
1/2 cup diced fresh pineapple (40)	1/2 cup canned pineapple chunks in natural juice (70)	1/2 cup canned pineapple chunks in heavy sirup (95)

VEGETABLE FRUIT Group

SERVINGS: 4 or more

Important for contribution of Vitamins A and C and fiber. Dark-green and deep-yellow vegetables are good sources of Vitamin A. Dark-green vegetables, if not overcooked, are reliable sources of Vitamin C as well as riboflavin, folacin, iron, and magnesium. Nearly all vegetables and fruits are low in fat and none contains cholesterol.

Servings and Calories

Lower	In-Between	Higher
2 oz. broiled chicken (95)	1/2 fried chicken breast (2-3/4 oz.) or 2 drumsticks (2-1/2 oz.) (160 to 180)	8 oz. individual chicken pot pie (505)
3 oz. lean hamburger (without bun) (185)	3 oz. regular hamburger (without bun) (235)	3-1/2 oz. cheeseburger (without bun) (320)
3 oz. lean roast beef (205)	3 oz. Swiss steak (315)	2/3 cup beef stroganoff over noodles (525)
2-1/2 oz. broiled cod with butter or margarine (120)	2-1/2 oz. fried, breaded ocean perch (160)	2-1/2 oz. baked stuffed fish (1/2 cup bread stuffing) (325)
1/2 cup boiled navy beans (95)	1 cup navy bean soup (170)	1 cup baked navy beans (310)
3 oz. boiled shrimp (100)	3 oz. fried breaded shrimp (190)	1/2 cup shrimp Newburg (285)

MEAT POULTRY
and
FISH BEANS
GROUP

SERVINGS:
2 or more

Provide protein, phosphorus, Vitamin B_6, B_{12}, and other vitamins and minerals. Red meats and oysters--good sources of zinc, liver and egg yolks--good sources of Vitamin A; dry beans, dry peas, soybeans and nuts are worthwhile sources of magnesium.

All meats contain cholesterol which is present in both the lean and fat.

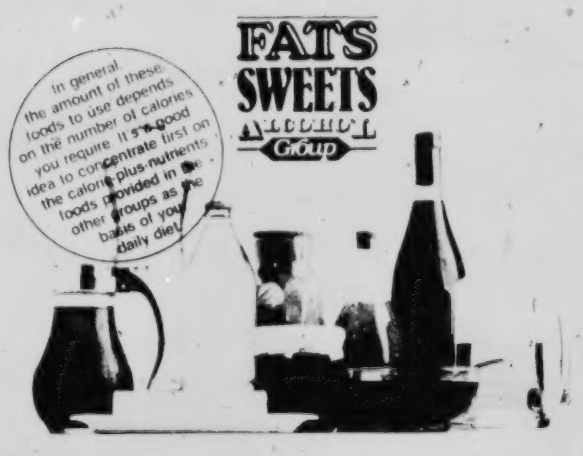
FATS
SWEETS
ALCOHOL

No serving size is defined because a basic number of servings is not defined for this group.

These products, with some exceptions such as vegetable oils provide mainly calories. Vegetable oils generally supply Vitamin E and essential fatty acids.

Servings and Calories

Lower	In-Between	Higher
1 teaspoon sugar (15)	2 tablespoons pancake syrup (120)	12 fl. oz. cola (145)
12 fl. oz. light beer or 3-1/2 fl. oz. dry wine (85 to 95)	12 fl. oz. regular beer or 3-1/2 fl. oz. sweet wine (140 to 150)	Tom Collins--1 fl. oz. gin & 6 fl. oz. Tom Collins (195)
3 oz. popsicle (70)	1/2 cup (single dip) sherbert (135)	1.2 oz. milk chocolate candy bar (175)


In general the amount of these foods to use depends on the number of calories you require. It's a good idea to concentrate first on the calorie-plus-nutrients foods provided in the other groups as the basis of your daily diet.
FATS
SWEETS
ALCOHOL
Group

PKC/815k

Servings and Calories

Lower	In-Between	Higher
1/2 cup (single dip) ice milk (95)	1/2 cup (single dip) ice cream (135)	1 cup vanilla milkshake (255)
1 oz. Cheddar cheese (115)	1 cup cheese souffle (260)	1 cup macaroni and cheese (430)
8 fl. oz. carton plain lowfat yogurt (145)	8 fl. oz. carton vanilla flavored yogurt (195)	8 fl. oz. carton yogurt with fruit or 2 dips frozen yogurt (225 to 240)

MILK
C H E E S E
Group

SERVINGS:
CHILDREN--
(under 9) 2-3 servings
CHILDREN--
(9-12) 3 servings
TEENAGERS--
4 or more
ADULTS--
2 or more

Provide calcium and riboflavin; contribute protein and Vitamins A, B_6, and B_{12}. Also provides Vitamin D, when fortified with this vitamin.

Servings and Calories

Lower	In-Between	Higher
1 cup plain corn flakes (95)	1 cup sugar-coated corn flakes (155)	1/2 cup crunchy cereal (See recipe p.42) (280 to 290)
1/2 cup steamed or boiled rice (85)	1/2 cup fried rice without meat (185)	1/2 cup rice pudding (235)
1 slice of bread (55 to 70)	1 corn muffin (125)	1 Danish pastry (275)
1/2 cup cooked noodles (100)	6 cheese ravioli with sauce (175)	1 cup lasagna (345)

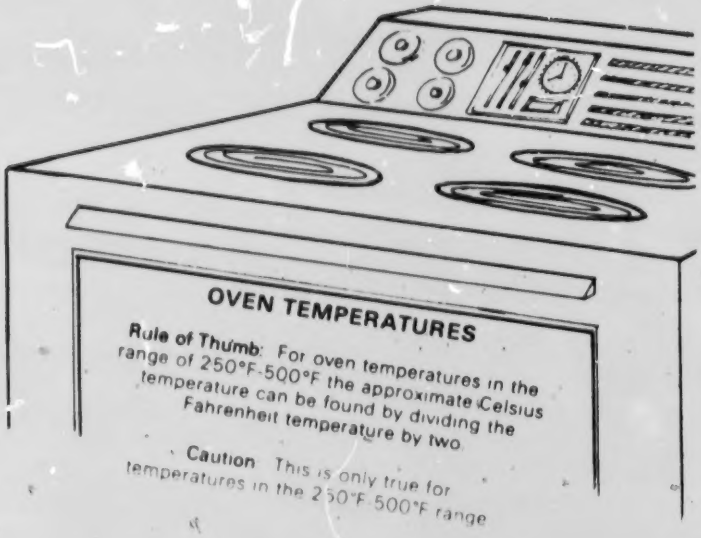
From: "Food," Home and Garden Bulletin #228, prepared by Science and Education Administration, U.S. Department of Agriculture. Copies may be obtained for $3.50 by writing: U.S. Department of Agriculture, Office of Governmental and Public Affairs, Publications Division, Washington, D.C. 20250

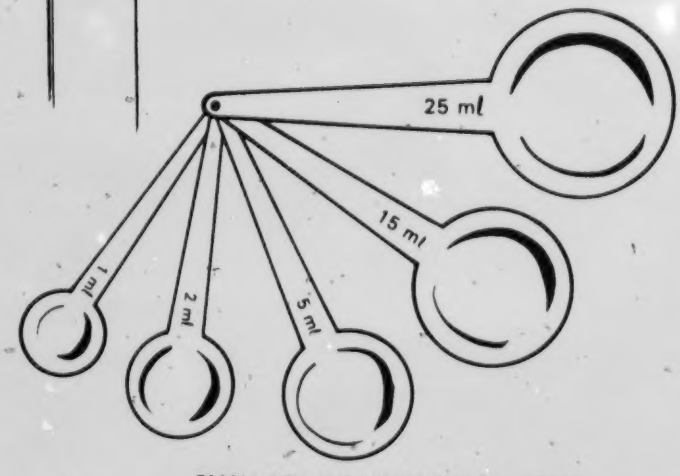
B R E A D
CEREAL
Group

SERVINGS:
4 or more

Important sources of B vitamins and iron. Also provides protein as well as magnesium, folacin, and fiber.

It should be noted that the metric system is well integrated in nutrition education as seen in the RDA's and nutritional labels that measure in milligrams (mg) and milliliters (ml). Food preparation is another area in which the metric system can be effectively utilized. Typically, the unit of measure for weight is the gram, whereas, the unit of measure for liquids is the liter. By taping the metric equivalents listed below to measuring cups and spoons, the conversion is simplified. Also, in order to facilitate the weighing process for conversion to the gram measurement, the purchase of a scale may be appropriate.


OVEN TEMPERATURES
Rule of Thumb: For oven temperatures in the range of 250°F-500°F the approximate Celsius temperature can be found by dividing the Fahrenheit temperature by two.
Caution: This is only true for temperatures in the 250°F-500°F range



SMALL DRY AND LIQUID MEASUREMENT
(1 ml, 2 ml, 5 ml, 15 ml, 25 ml)

HOW TO START A NUTRITION COOKING PROJECT

1. Meet with the principal and inform him/her of your rationale and well-planned procedures. Ask if there are any other concerns you should address.

2. Inform the parents. . .This can be done at parent-teacher conferences or by a letter. You need to tell them the rationale for cooking, how the subjects will be integrated, the cost, and how they can help. Also, they should be asked if the child has any food allergies or other diseases such as diabetes or cystic fibrosis.

3. You need to set aside a place in the room to do the cooking. It should be away from the mainstream of traffic. This place should have some counter space near electrical outlets. Also, it should be close to a water source. If you do not have counter space, push four desks together. Be sure the desks are close to the wall and that you entwine electrical cords around the legs of the desks.

4. You need to obtain cooking equipment. You and/or the children can bring the utensils as needed, but it is best to have most of the equipment stored in your cooking area. Garage sales are a good source for obtaining many pieces.

5. You need a place to store the equipment. This place should preferably be enclosed.

6. You need to sit down with the children and formulate some necessary rules. Allow the children to suggest the rules. Write them down. If the children are not able to copy them, make a ditto of the rules. Each child should have a copy to put in his/her cookbook. Also post the rules in the cooking center, and be sure the rules are followed.

7. Introduce the basic five food groups. This booklet is organized around the fruit/vegetable, meat, bread/cereal and milk/cheese groups. The fats, sweets and alcohol group is convenient for many foods that used to be hard-to-place.

WAYS TO ORGANIZE THE CLASS FOR COOKING ACTIVITIES

There are a number of ways the class can be organized to do cooking. The method you choose depends on the abilities of the children you have, and what you want to accomplish from the experience. Following are some suggestions.

1. The whole class method requires a minimum of organization and time. It allows an opportunity to introduce new words and demonstrate measuring techniques, recipe procedures and the safe way to use utensils.

2. Starting off as a whole class and then breaking up into small groups works well when each smaller group performs a task necessary for one finished product. An example is the making of a fruit salad. The ingredients and utensils and the procedure for preparing the fruit salad would be discussed with the whole group. Then smaller groups can be assigned to do specific jobs. One group might be in charge of peeling the oranges, another group, quartering the apples, another group, opening the canned fruits, etc. After all the groups finish their jobs, the whole group comes back together again to discuss what they did.

3. Small groups can work independently to prepare a recipe that will be shared with the whole class. This method is good to use when the children are preparing a simple snack like carrot sticks or apple kabobs.

4. A place in the room can be set up with the ingredients and utensils out and the recipe posted at the cooking center. As the children finish their work, they make their own product and eat it. This method works best with a simple no-cook recipe, like cocoa from a mix or crackers and cheese.

5. For the assembly line method all the ingredients and utensils are set out. The recipe is posted. All the children line up and make their own product. This procedure is good for tasting new products, like mustard greens and collard greens dipped in a dressing.

WAYS TO INTRODUCE A COOKING ACTIVITY

1. One or two days before you plan to cook, announce or write on the board:

   We will make _____ if you help bring the ingredients.
   What will we need?

   List the ingredients on the board. Talk about each one and have the children volunteer to bring an ingredient. If the children are capable of writing, have them write a note to their parents stating what they are to bring. If there are children who forgot to bring an ingredient, don't cook that day. Give the children another chance. They will probably remember the next day. This teaches children responsibility. Of course, you'll have to be the judge if it was the child's forgetfulness or the parent's. It is always good to have some of the ingredients available for such instances.

2. You can surprise the children. Have the ingredients and the utensils in a bag. Write on the board or tell the children they are going to be allowed to cook today.

3. Play twenty questions:

   We will make something today. It is in the meat group.

   Children then ask questions. You can only answer them yes or no.

4. Write a riddle on the board. For example:

   Today we are going to make something.
   It has ingredients from each of the basic food groups. What will it contain from each group? What could it be?

   Children try to guess. Give more specific clues if needed, for example: It can have in it apples, oranges, bananas, grapes, cheese, yogurt, peanuts and it can be served on a lettuce leaf. Riddles are good to gain the interest of children with limited reading skills. If children can read, have them read the riddle silently and then ask questions.

Things to Be Done the Day Before You Plan to Cook

1. Check utensils.
2. Bring supplies that you think children might forget if children are to supply the ingredients.
3. If you are bringing the ingredients, recheck to see that you have everything.
4. Plan how you are going to organize the children.
5. Review which nutrition concepts the activity will reinforce.
6. Decide what subjects you are going to integrate with the cooking.
7. Decide how you will evaluate the learning activity and prepare necessary dittos.

Ways to Begin a Cooking Activity

1. Wash hands and desk.
2. Write the recipe on chart paper or on the board. Read it all the way through.
3. Go over the cooking rules.
4. Have the children put the ingredients in an orderly fashion.
5. Lay out all the utensils needed.
6. Remind the children of their responsibility to clean up.
7. Review the related nutrition concepts.

Use every opportunity to integrate the disciplines with what is being done, but don't overwhelm the young child with too much talk or try to accomplish too many concepts at once. Allow the children to do everything that is safe. You, as the teacher, should circulate around if the whole group is doing the cooking, asking, telling and questioning. If a small group is working alone, allow them to proceed on their own. Cooking in the classroom takes some extra planning and organization so don't attempt the project without adequate planning. If you do, both you and the children will be frustrated.

EVALUATION METHODS

Evaluation is the final step. Review the concepts that were demonstrated. Did they like what they made? Did they like doing it? What went wrong, and why? Always ask if what was made met any of the basic food requirements or the nutrients needed. The evaluations will, of course, be different for the different age groups and for each cooking project. The following are some ways that can be used to evaluate:

1. Have the children think of other ways that they could make the same product. What could they add to the product to make it more nutritious? What could they take out?

2. Give oral questions about what was done and how it was done.

3. Give a ditto of questions to be answered about what they did. These can be yes or no questions, fill in the blanks, putting steps in sequence, defining words, etc. Examples of these are found in the appendix.

4. Have children write creative stories, a factual account, a report, TV script, poem, play, etc., about the activity.

5. Write a newspaper article, a letter to a friend or to their parents telling them what they have made.

6. Write the recipe in their cookbooks.

7. Have the children draw a food tray and on the tray have them either draw, write or find pictures of the basic food groups.

8. Divide the class into two groups. On the board write the basic food groups as headings. Choose one of the food groups to begin and then have each team give a food from that group. A student or the teacher can write it on the board. The team that no longer can name a food from that group gets a point. The team with the least points is the winner. This can be done with different food groups another day.

9. Make a ditto like the following: The child draws a line to match the food with its food group.

Milk Group	chicken	Meat Group
	ice cream	
	wheat flakes	
Fruit & Vegetable	cake	
Group	peanut butter	Bread/Cereal Group
	cheese	
	tuna	
	soda	
	orange juice	
Fat, Sweets, &	rice	
Alcohol Group	brocolli	

10. Make a hidden word activity. Have them circle only the foods from a certain group.

11. Make a food mobile. Make either one for each of the food groups or one with all of the food groups.

TEACHING ALL OF THE BASIC FOOD GROUPS

1. Obtain food models or have the children collect pictures of food or use the pictures from the labels on cans. Paste pictures and/or labels on lightweight cardboard. Be sure the food name is easily recognizable to aid the children in word association. Preschool and kindergarten children should concentrate on one of the basic food groups at a time. Using the food models as flash cards, identify the foods by name. Next, announce food names and have students locate the appropriate picture. Once the children learn foods from two of the food groups, they can be given brown lunch bags to sort the pictures. After learning foods from the fruits/vegetables and milk group, or others, have the children sort the pictures into two brown bags. You might put a picture of a food representing the group on the front of the bag with the nutritional function. This not only helps in classification, but also in learning some new words. Do this until they learn the names of the foods and what groups they belong to.

2. Children can cut out pictures from food magazines. Then have them sort the pictures into the basic food groups. The children can paste the foods of each group on a separate piece of cardboard and label the group. These can be displayed on a bulletin board.

3. Children can cut pictures from food magazines of all kinds of food and paste them by groups on pieces of cardboard and then cut them into puzzle size pieces. They can be kept in large brown envelopes. The children can put the puzzle of a specific food group together. To provide more of a challenge, have them mix pieces of puzzles from more than one food group and then try to put them together.

4. Copy the pattern of the octopus.* When studying a single food group, have students put foods from it on each tentacle. Once the children learn what foods they need for a balanced meal, they can plan for the octopus, a balanced meal by putting different foods on each tentacle. *Reprinted with permission of Good Apple.

5. Make a monster from terry cloth, and cut a big mouth. Put a bag behind the mouth opening. Attach the monster to a bulletin board or in front of a box. Put the food models in a container. Have a bubble above the monster's head saying what kinds of foods it will be eating. For example: In the bubble above the monster's head, say: "I will only eat vegetables today." The children are then to feed him only vegetables from the container. Or the bubble might say, "Feed me good snacks," or "I'm getting fat. Feed me only low calorie foods."

6. Have the children make a food character with food representatives of each food group. Again, children will find pictures from magazines and group them according to the basic food groups. They are then to assemble a figure using the foods from that group. For example, a character from the meat group might have a ham for the head, a tuna can for his neck, hot dogs for his legs, turkey for his body, peanuts for his arms, a shrimp nose and eggs centered with peas for his buttons. This can be an art lesson as well as a lesson in nutrition.

7. The children can trace around each other's body and paste pictures of the different food groups on the body.

8. Children can make food wheels of each of the basic food groups. Have them trace around different size circles and then divide each circle into segments and write a food in each segment that is in the fruit/vegetable group. On another wheel, write the foods from the meat group etc. Later on they can be used to help the children plan balanced menus.

9. Have children take five envelopes, staple them all together on the bottom of the envelopes, keeping the top opening free. Children can collect pictures of foods and put them in the properly labeled envelope.

10. Have students make coat-hanger mobiles of each food group, hanging cardboard-backed pictures of foods.

FREE AND LOW COST MATERIALS FOR TEACHING THE BASIC FOOD GROUPS

Companies that have free/low cost materials available to teach the basic food groups are:

Food and Nutrition Service
United States Department of Agriculture
Washington, D.C. 20250

Has the following publications. Single copies are free.

Fun With Good Foods. Program Aid 1204 (GPO Stock No. 001-000-03868-1). Activities designed to stimulate children's interest in learning about food and nutrition. For 4- to 7-year-olds, the pamphlet includes some activities which may require some hlep from an adult.

The Four Food Groups for Better Meals Game. FNS-122 (GPO Stock No. 001-024-00194-5). A Bingo-type game for all ages.

School Services Division
Florida Dept. of Citrus
Lakeland, Florida 33802
(813) 682-0171

Has a free large size poster of "The Basic Four Food Groups".

Publication Center
Office of Governmental and Public Affairs
U.S. Department of Agriculture
Washington, D.C. 20250

Has four free booklets entitled; "Mary Mutton and the Meat Group," "Fred the Horse Who Likes Bread," "Gussie Goose, Introduces the Fruit & Vegetable Group" and "Meet Mooly-Moo." Each of these booklets has games and activities to teach the basic food groups.

Expanded Nutrition Programs
Cooperative Extension Service
University of Illinois
Urbana-Champaign, Illinois 61801
(217) 333-1654

Has a booklet, entitled, "Nutrition: Games, Songs, Skits for Fun and Learning NEP-519A," for 40¢. This booklet has many ideas for teaching and evaluating nutritional learnings. Other nutrition materials are available.

Consumer Information Center
Pueblo, Colorado 81009

Has a free coloring book, "The Thing the Professor Forgot" which teaches children about the food groups and good nutrition.

INTEGRATING MULTIDISCIPLINARY SKILLS

To teach the letters of the alphabet and their sounds:

Serve a nutritional food beginning with the sound being taught. For example: a-apple, a-acorn, s-squash, b-banana, c-carrot.

Make up a little jingle or song to introduce each letter or sound: with food ....a..a..a..a..apple.

The letter could be written in the color of the food represented. If serving red apples, write the a's in red. With some of the foods, you will be able to make a picture to help the child associate with the sound. See appendix for alphabetized snack foods.

To teach the manuscript formation of letters, use the dough from the pretzel recipe, and have the children form it into letter shapes.

To teach sequence, write each part of the recipe's procedure on cards, scramble them and have the children put them in the correct order.

To teach comprehension, write a riddle or a paragraph about what you plan to make, have the children read it silently and then ask them specific questions.

To make generalizations, write the recipe on the board, then ask what utensils will be needed and what procedure will be followed.

Counting - by 1's, 2's, 5's, 10's or also 3's, 4's, etc., use washed and dried pumpkin seeds, oyster crackers, peanuts in the shell, apples or oranges, wheat squares, oat cereal, etc.

To teach the ten's concept, use the oyster crackers, wheat squares, peanuts, or pumpkin seeds. Line up in a row and count as 10 ones. Put in a pile or a group and count as one ten. Give the children each a handful of one of the above products and have them group these by tens. Add groups of tens.

The above products can be used to teach adding. Put two apples and three apples together. How many apples do you have?

Foods can teach subtraction. Give the children some oyster crackers or peanuts, have them count them and then eat a specified number. Tell how many are left.

To teach multiplying, have them put out foods in rows with the same number under each row. For example, three rows of apples with three in each row...makes 3 x 3 equal 9.

To teach dividing, put out the product, have children come and each try to get the same amount...for example...put out eight peanuts or crackers and call up two children. Tell them to divide the product so each has the same amount...each would get four.

Story problems can be made up and food products used to make the concept more concrete. For example, "Mary, come and get 5 apples. Now give two of the apples to Jason. How many apples do you have left?"

To teach division, cut the apples in half, then put the two halves together to form the whole, then cut the halves in half to form 1/4's...putting them all back together to show that 1/4 and 1/4 and 1/4 and 1/4 can make a whole...1/4 and 1/4 make 1/2, etc.

Use any of the above to make sets. Have the children make the greater than or less than symbol between the two sets.

Apples are good to teach words big, small, bigger, smaller, more, less.

Pieces of uncooked macaroni are good to teach longer, longest.

Use spaghetti or macaroni to measure in cm.

To teach consumer skills, take some canned foods, have the prices written down, add the cost of the products using the decimal point and dollar sign and/or cents as needed.

Children can learn to make change by setting out some canned or boxed items with the prices marked on them. After they have added the cost of the items, they are then given a specific amount of money and told to figure out how much change they will get back.

Display a number of food products, have the children find the total cost and then challenge them to see how many different ways they can pay for it by using different combinations of money...for example: The products might cost - $2.00. How many different ways can you make $2.00? (8 quarters, 200 pennies; one dollar and 2 half dollars, etc.)

Reinforce adding by adding calories of food models.

When making orange juice, using milk or demonstrating with an empty milk carton, have the children pour the number of metric measures needed to fill the container. Learn how many millileters or deciliters in a liter, etc.

To teach making a bar graph, take a vote on the number of children who liked the food, have each child color a square on the graph paper, then have those who didn't like the food, color squares on another line.

To teach time, use a play clock and set the time the product starts to cook, then move to the time it will be done, teaching the number of minutes required for the product to bake, cook, etc.

To teach estimation - guess how many raisins in a container, how many peanuts in each shell, then count to see how close they came to their estimation.

To teach one to one correspondence - put out a pile of crackers - have a child give out one to you - one to me, etc.

Recipes can be utilized to teach addition, multiplication and division. Make a recipe that makes six servings and then show how it can be increased to serve grandma, grandpa, Uncle Charlie, Aunt Minnie, four cousins, your mother, father, you and a friend. Also let them decrease the recipe.

Learn the concept of conservation by showing that one cup of juice does not increase when poured into a tall glass or it does not get less when poured into a short mug.

To teach location of taste buds, use popcorn seasoned with different seasonings...such as salt, cinnamon sugar, dried soup mix, etc. Taste sweet, sour and dill pickles.

To teach bacteria growth and sanitation principles, put bread in a plastic bag with a little moisture, seal and let stand in a warm room.

To demonstrate the reason for some food additives, use bakery or homemade and bread with preservatives. Check for mold growth daily.

To teach the change of the state of matter, make butter, ice cream, yogurt, unflavored gelatin, instant pudding, cooked pudding. Discuss how a grape becomes a raisin.

To teach dissolve, make instant milk, gelatin with unflavored gelatin, tea with sugar, both hot and iced.

To teach spoilage and sanitation, put a good apple next to a bruised apple, enclose in a plastic bag. Explain how teeth might affect each other.

To teach sink and float, make gelatin and add marshmallows and pineapple chunks before it gels.

To teach the children about other cultures, make tacos, tortillas, egg foo yung, lasagna, Indian fry bread, etc. Research and discuss the countries where these foods are eaten. Invite natives of the country to talk and prepare foods with the children.

To teach careers, talk about workers needed to get food to the market, to serve food in restaurants and school cafeterias, and to teach food and nutrition in high school, hospitals and government programs.

When making individual kabobs or cups of cocoa, talk about how this procedure is used in factories...the assembly line process.

Parental Involvement and Reinforcement

1. Parents can help arrange and drive on field trips. On grocery store tours, they can be responsible for a small group and take them to specific areas to check on products.

2. At parent conferences ask the parents to reinforce at home what their children are learning at school.

3. Send frequent letters home telling the parents what the class has cooked and how each project involved other disciplines.

4. Encourage children to tell their parents at least one thing about each cooking experience. Emphasize at least one point by saying to the children, "This is probably something your mother or father would be interested to know. Be sure to mention it tonight." Emphasize such ideas as using a steamer to cook vegetables, not salting food while cooking, absorbing the fat with paper towels from all fried foods, putting the lids on pans when cooking liquids, etc.

5. Write notes home or have children write notes asking their parents to allow them to pack their own lunches, or help plan the menus or help with the shopping.

6. Start a "Try It, You'll Like It Club" at home. Have parents and children try different foods and fill out a checklist of their reactions.

7. Have a Parent's Day Punch to celebrate Parent's Day. Children can plan a party. They can make the fruit punch and fruit salad or other nutritional foods. The children serve their parents and possibly put on a short play, skit or a talent show.

8. Have room potlucks at night encouraging the parents to bring their most nutritious casseroles or salads.

9. Have children write the recipes of what they have made in school. Have them take the recipes home and help make them for the family.

10. Encourage parents to send nutritious recipes with their children to show and tell. If it is possible to cook the product, have the child who brings the recipe be in charge of the cooking group.

11. Have children plant herbs, beans, corn, squash, and pumpkin seeds to give to a younger sibling to take care of; also give some to grandmas and grandpas.

12. Make a small jar of jelly or a mini-loaf banana bread in a juice can and give to the parents for gifts.

13. Take slides of the cooking projects and invite the parents to see them. Of course, the children will have made the nutritious refreshments and will be in charge of serving them.

14. Ask parents to save coupons they don't use and start a coupon exchange with other parents.

15. Have a Nutrition Fair. Have parents be in charge of the booths.

FRUIT & VEGETABLE GROUP ACTIVITIES

GOOD SNACKS CHILDREN CAN PREPARE FROM THE FRUIT GROUP

1. Cut apples in 1/4's, spread with soft peanut butter. Can be varied by adding raisins, wheat germ, cinnamon-add-a-crunch.

2. Use the same procedures with bananas. Soak first in lemon water to prevent turning brown.

3. Make apple kabobs-alternate apple cubes, raisins, cheese cubes, pineapple chunks or any other combination on a wooden chopstick-two fruits can be done on a toothpick.

4. Fruit salad - use any combination of fruits...to include other food groups you may add nuts, cheese cubes, etc. Serve on lettuce leaf or with a yogurt topping.

5. Applesauce - do not add sugar.

6. Waldorf salad - cubed apples with nuts and celery, crushed pineapple. Doesn't need any dressing.

7. Fruit balls - grind up 90g each of raisins and dates and orange rind, add 5 ml. orange juice and 2 ml. cinnamon. Roll into balls. Allow children to suggest other variations, example: pitted prunes, sunflower seeds, etc.

8. Fried apples with cinnamon, or prepare boiled apples or baked apples.

9. Apple cider - a slice of apple and a spoonful of applesauce might be used at the same time so children can taste and compare the likenesses and differences of the forms of the same product. This activity is good to introduce a bar graph. Also good for comparison of textures of the same food prepared in different ways.

10. Freeze fruit juices in ice cube tray or in paper cups.

11. Stuff prunes with creamed cheese mixed with the crushed pineapple and nuts.

12. Cut bananas lengthwise, spread one half with peanut butter and put the other half on top.

13. Combine fruit cocktail (drained) with small marshmallows and yogurt.

14. Make a fruit rocket: place a pineapple slice on a plate, cut a banana crosswise then top with a cherry in the pineapple ring.

15. Make a fruit tree salad: put a pineapple slice on a plate, put a banana sliced crosswise in the pineapple ring, put pieces of apple, grapes, pineapple and other fruit on toothpicks and stick in the banana.

16. Cut bananas in 1/4's, put toothpicks through bananas, dip in melted chocolate chips and roll in wheat germ or chopped peanuts.

17. Make a banana boat: cut banana in half lengthwise, use apple wedge for sail and add raisins for men.

18. Make a bunny salad: take a half of a pear, place face down, put raisins for the eyes, almonds for ears, cherry for the nose, a spoon of cottage cheese for his tail.

19. Make fruit faces: use a half of a canned peach, place face down on a plate, use raisins for eyes and hair, a cherry or strawberry for the nose and an apple slice for the mouth or have children make up faces.

20. Cook prunes in apple cider.

21. Peel banana, cut in half crosswise, insert a stick in center, wrap in plastic and freeze. Eat as is, or roll in chopped nuts or wheat germ.

22. Combine equal parts of pineapple, mandarin oranges, miniature marshmallows, and sour cream.

JUICY-ANANAERM

(Original name thought up by second graders)

Ingredients:

- Bananas
- Orange juice or any other kind of juice
- Wheat germ

Utensils:

- knives
- container to mix juice
- spoon
- bowls for wheat germ or plastic bags
- bowl for juice
- toothpicks
- napkins

Procedure:

1. Peel banana.
2. Cut in the number of pieces needed to give each person an equal amount.
3. If using frozen orange juice, mix it according to directions on can.
4. Pour orange juice in bowl.
5. Put wheat germ in a bowl or plastic bag.
6. Put banana in orange juice bowl.
7. Then put in wheat germ and shake.
8. Stick a toothpick in it to serve or place on a napkin.

BANANA - WHEAT GERM SNACKS

A Way to Introduce:

Today we are going to make a treat.
It has three ingredients.
Two of the ingredients are from the fruit group, one is from the cereal group.
This can be a snack, a breakfast, lunch or dinner, dessert.

Of course, the children will not be able to guess from these clues, but it can provide reading practice. If read silently, ask comprehension questions, like: How many ingredients does this recipe contain? These ingredients will be from what group? For what meals can you eat this?

Then give more specific clues:

One of the ingredients from the fruit group turns colors.
It has a skin. We do not eat the skin.
It turns from green, to yellow to brown. (You might ask why? It ripens.)
What is it?

The other ingredients from the fruit group grow on trees.
They are grown in California, Texas and Florida.
They are juicy and orange.
What are they?

The last ingredient is from the cereal group.
It comes from a grain.
From that same grain, we get a cereal that is a good cereal because it does not contain sugar. (shredded wheat)
What is it?

Once the children guess the ingredients, you might have them guess what they might make from the ingredients. List ideas.

The children can also tell you the procedure they would use to make this product. Guidance on sequence may be necessary.

PEPPY ORANGE

Ingredients:

oranges
peppermint sticks

Utensils:

knives

Procedure:

Give each child an orange. Have them wash it and then stick a peppermint stick into the top. Suck the juice through the peppermint stick. Then cut open and eat the pulp.

This is a good activity to teach sharing. Obtain only enough oranges so that the children will have to cut them in half or even 1/4's. Teach cutting an orange crosswise rather than lengthwise. Allow them to discover how to put in the piece of peppermint. They can come up with some very creative ways. This activity is a good one to have the children rename the recipe and make up stories.

FROZEN FRUIT SALAD

Ingredients:

250 ml mayonnaise
246 g (1 container) lemon yogurt
229 g (1 16-oz. can) fruit cocktail, well drained
3 bananas sliced
60 g chopped walnuts

Utensils:

bowl
whisk
square cake pan (20cm by 20cm by 5cm)
knife for cutting

Procedure:

With whisk, beat mayonnaise and yogurt until smooth. Fold in fruit cocktail, bananas and walnuts. Pour mixture into pan. Cover and freeze until firm. For easier cutting, remove from freezer 45 minutes before serving. Cut into squares. Makes 6 servings, or many small portions.

FINGER JELLO

Grape Finger Jello - has no artificial flavorings or colorings.

Ingredients:

375 ml (1 12-oz. can) frozen grape juice concentrate, thawed
3 envelopes unflavored gelatin
375 ml water

Utensils:

bowl
spoon
boiling water (tea kettle)
4 empty frozen juice cans

Procedure:

Soften gelatin in grape juice. Boil the water, add the juice/gelatin mixture and stir till gelatin dissolves. Refrigerate in a covered container. If you let this jello stand for about 15 minutes it will thicken. Place a spoonful of the gelatin into each of 4 empty, clean 200 ml (6 oz. cans). Cut a peeled banana in half and put it in the center of the can. Spoon in remaining gelatin. Chill until firm. Unmold by dipping into warm water. Cut in slices.

Variations:

Other juices can be substituted (apple, cranberry). This does not have to be refrigerated if used within 2-3 hours.

CRANBERRY-ORANGE RELISH

This is a good activity to do around Thanksgiving and Christmas. Cranberries are usually more plentiful then and you could work the activity in with your money unit. The children could take orders from their parents and friends. They should decide how much to charge in order to break even after they deduct the cost of the ingredients.

This activity can be somewhat messy and you might want to ask a parent to help supervise.

Ingredients:

150 g firm, fresh cranberries
2 large thin-skinned oranges or 2 medium-size unpeeled apples with 125ml orange juice
400 g sugar

Utensils:

colander
food grinder

Utensils: (Continued)

knives
cups
paper towels
wooden spoon
glass bowl
plastic wrap

Procedure:

Wash cranberries thoroughly and pat dry with paper towels. Cut oranges into quarters and remove seeds. Put cranberries and orange quarters including rind through coarse blade of food grinder. Place chopped mixture in a glass bowl and add sugar. Mix well with wooden spoon. Cover with plastic wrap and let relish stand for at least 24 hours before serving. Relish may be stored for two to three weeks in the refrigerator. Makes 1.25 liter.

RAISIN CHEESE FUDGE

A Way to Introduce:

We are going to make something today that has ingredients from the meat group, the fruit group and the milk group. It has a candy name. Let's play twenty questions to see if we can guess the ingredients.

This should be introduced to the whole group. If you would like a small group to do it, have them take over after you introduce it. The whole class should brainstorm what they think this recipe would contain. Write each idea on the board and discuss it. If it is not one of the ingredients, "Say it could be but it isn't" and cross it off.

Ingredients:

185 g raisins
120 g broken walnut meats
225 g finely grated cheddar cheese (8 oz. package)
2 ml salt

Utensils:

measuring cups
grater
teaspoon
blender
square cake pan (20cm by 20cm by 5cm)
wax paper
bowl

Procedure:

1. In blender, chop raisins, 40-50 g at a time. Pour into mixing bowl.
2. Whirl nut meats until finely chopped. Mix with raisins.
3. With fingers, work in cheese and salt until well blended.
4. Pack mixture into waxed-paper lined pan. Chill until firm, then cut into squares. Makes 3 dozen.

This product is good to talk about the necessity for clean hands. Good to introduce two utensils that might not be familiar to the children--the blender and the grater. Why do you think this is called fudge? Talk about how raisins are made from grapes and why we can't make raisins here. Where do we get most of our raisins? (California)

MUNCHKIN MIX

This recipe is similar to the Raisin Cheese Fudge but is easier to make.

Ingredients:

500 g raisins
500 g peanuts

Utensils:

bowl
spoon
cup cake liners to serve it in or napkins

Procedure:

Mix the raisins and peanuts together. Serve in a cupcake liner or on napkins. Makes 1 kg.

Variation:

Add one or more of the following to raisins:
nuts
sunflower seeds (shelled)
coconut
granola
diced dates
tiny crackers
packaged unsweetened cereals

Vegetable Sampling

Vegetable sampling is an effective way to integrate the curriculum nutritionally as well as introduce the children to many different vegetables.

This activity is good to do when fresh vegetables are in good supply. Buy some of the more unusual vegetables, for example: mustard greens, turnips, eggplant, squash, collard greens, spinach, cucumbers, radishes, mushrooms and cabbage.

Bring in these vegetables in grocery bags. Do not allow children to see what is in the bags.

> "Today we are going to play a game called touch, describe and guess." "I have several things in this bag. When I call your name, close your eyes, feel something in the bag and describe what you feel. When you are through describing it, pick someone to try to guess it."

For example, a child is called upon, closes eyes, reaches in, and says, "I feel something smooth and oval. It feels like a bald head. What is it?" All children can guess or the child who is describing picks on someone. As each vegetable is touched, described, guessed or told, the name is written on a big piece of shelf paper. After the vegetables are all taken out and displayed on a table, have different children pick out a vegetable and find the word on the piece of shelf paper and check it of. Next talk about how each vegetable should be stored. Since you will not plan to do but one vegetable a day, the children need to know the proper means of refrigeration. Where in the refrigerator should they be stored?

*Depends on the vegetable - Wash lettuce and greens, store in vegetable crisper or plastic bag. Do not wash potatoes or onion.

The next day they can vote on which vegetable they want to taste and cook. After the votes are counted, talk about the necessity of washing vegetables (dirt, pesticides). Then taste each vegetable raw and cook those that can be cooked.

When cooking any of the greens (mustard greens, turnip greens, collard greens or spinach), introduce the children to the steamer. Impress upon them the advantage of cooking vegetables in a steamer. Vegetables retain more water soluble vitamins when they do not come in direct contact with water. Limit the salt, and cover the pan to conserve energy. Talk about saving the liquid the vegetables were cooked in. Show them how to put the liquid in a container and freeze it. Later it can be used for a soup starter.

Cheese dressing might be tried with the raw greens. Lemon juice and vinegar might be tried on the cooked greens. Acorn squash might be baked and eaten with only a little salt. Children can be taught how to make radish roses, score the cucumbers and arrange them on a relish tray.

Eggplant parmesan might be made from the eggplant.

> Pare and slice the eggplant, add tomatoes, mushrooms and cook until barely soft. Add parmesan cheese.

Cabbage can be made into slaw. Children like to experiment with the grater to find which side would make the best slaw, and which sides didn't and why.

A few of the greens might be left to dry-and later crushed and used for soup seasonings.

POTATOES

Potatoes are easy to fix and are a good vegetable to prepare in the classroom.

Have the children brainstorm as a group on all the ways potatoes can be prepared. List each idea on the board. Then talk about how potatoes grow, their Vitamin C content and about the myth that potatoes are fattening. (A plain baked or boiled potato contains about the same number of calories as a large apple.)

Preschool children love to scrub the potatoes for baking. Try baking some of the potatoes wrapped in foil and some that are not. This is a good way to integrate the meaning of time, also the older children can learn how to tell time and to discover the way foil can save energy. When the potatoes are served, encourage the eating of the skins or at least trying them. It is amazing how most children will emulate your reactions to foods.

Mashed potato preparation is a good activity with preschool and kindergarten children. It demonstrates how textures vary. Also boiled potatoes with parsley flakes could be introduced as a mid-morning snack instead of cookies and sweetened juice.

Potato salad is also a good activity to do. Stress the danger of leaving potato salad unrefrigerated in the summer. (May cause food poisoning because eggs in mayonnaise are uncooked.)

Bring a sweet potato and a yam and compare them to an Irish potato. Compare the nutrients.

Plant the potatoes, measure their growth and record on a graph. See appendix.

CELERY AND CARROT STICKS

Celery and carrot sticks are vegetables that are easy and quick to fix. Show the children how to scrape them so they lose the least amount of nutrients. Also show the children different ways they can be cut to make them pretty. Possibly prepare carrot curls shaved with a vegetable scraper and put in iced water, carrot coins, carrot flowers, carrot stars. Celery can be filled with cream cheese, cream cheese and pineapple, cheese and nuts, peanut butter, etc. (The children might think of many more things.) Stack a piece of celery on top of a piece that has a filling, then cut crosswise. Show the children how to cut the celery lengthwise and soak in cold water to fringe out and make a fan. Make a relish tray. Radishes can be cut and put in cold water to look like roses. Talk about how vegetables might be arranged with different colors next to each other to make the tray more attractive.

CARROT-RAISIN-PINEAPPLE SALAD

Peel and grate enough carrots to make 225 g. Add 90 g of seedless raisins and 130 g of crushed pineapple.

Serve as a snack or as a salad to accompany a meal. Discuss how this salad could be varied. Would it be more nutritious? How much will this salad make? How can you make it for more people?

CARROT-RAISIN SPREAD

Mix together 55 g grated carrots with 65 g peanut butter, 40 g chopped raisins and 30 ml salad dressing. Serve on crackers, fruit slices or bread.

Plant a carrot top in dirt, put another one in water. Which one gets leaves first? Make a graph of the plant's growth.

CRUNCH MUNCH LUNCH

Ingredients:

- 1/4 apple
- 1/2 small carrot
- 30 g raisins
- 14 ml yogurt

Utensils:

- knives
- scraper
- bowl
- spoon

Procedure:

1. Cut apple in small pieces.
2. Peel carrot and cut into small pieces.
3. Put pieces of apple and carrot into bowl and add raisins and yogurt.
4. Mix well.
5. Serve on a lettuce leaf.

BEAN SPROUT SALAD

Ingredients:

- 30 g chopped celery
- 60 g bean sprouts
- 15 ml sesame seeds
- a few drops soy sauce
- a squeeze of lemon juice
- 15 ml of yogurt

Utensils:

- knives
- bowl
- measuring utensils
- spoons

Procedure:

1. Chop celery and put into a small bowl.
2. Measure rest of ingredients into the bowl.
3. Carefully mix the salad.
4. Serve a small plate.

Grow some bean sprouts. Discuss. Put the celery leaves with some of the stalk in a glass with water that has been colored red with food coloring. Discuss how this demonstrates the way plants obtain nutrients. Research and discuss soy sauce and sesame seeds.

TIFFANY'S SALAD

Ingredients:

3 shredded carrots, @ 225 g
3 diced celery stalks, @ 240 g
100 g chopped nuts
40 g shredded coconut
250 ml salad dressing
15 ml vinegar
15 ml sugar
15 ml milk

Utensils:

scraper
knives
spoons
bowl

Procedure:

Combine all ingredients and mix together. This salad tastes best after it has been stored in the refrigerator overnight.

Motivate children to create their own salad recipes. If it sounds feasible, have them prepare it for the class. This is a good way to get children to do research, to think and to do writing, plus many other learnings.

STONE SOUP

Read Marcia Brown's book, Stone Soup. Then ask each child to bring a fresh or canned vegetable for the soup the class will prepare. Each child can be in charge of fixing the ingredient he/she brought. Add a clean stone and a soup bone or some beef stock made from bouillon cubes.

This activity teach responsibility and cooperation as well as the basic subjects.

LENTIL SOUP

Ingredients:

190 g lentils, washed
750 ml stock (water with beef bouillon)
1 #2 can of tomatoes (162 g)
2 ml thyme
salt and pepper to taste
Swiss Cheese - shredded

Utensils:

crock pot or pan - possibly old popcorn popper
spoons
cups

Procedures:

Add all the ingredients in a pot. Cook until the beans are tender. Serve in bowls topped with shredded Swiss cheese.

This is a good activity to brainstorm what other ingredients could be added...(hot dogs, ham hocks, celery, carrots, etc.). Also ask what you would serve with this to make it a balanced meal. Lentils, a good source of protein are in the meat group. Serves 4-6, or many small portions.

CITRUS SLAW

Ingredients:

240 g shredded cabbage
4 oranges, peeled and sliced (save juice)
70 g seedless raisins
125 ml mayonnaise

Utensils:

bowl
spoon
cup

Procedure:

Place cabbage in salad bowl. Cut orange slices into quarters and add with raisins to cabbage. Blend mayonnaise with orange juice from sections; add to cabbage mixture and mix well. Chill.

Children enjoy using the grater to shred cabbage. Talk about, and experiment with all sides of the grater and then decide which side makes the best slaw and why. How could you use the other sides of the grater? (Grate orange or lemon peel, cheese, carrots.)

SPAGHETTI SQUASH

Ingredients:

spaghetti squash

Utensils:

pan
aluminum foil
oven
knife
spoon

Procedure:

1. Cut spaghetti squash lengthwise.
2. Scoop out seeds and seed pulp.
3. Wrap squash halves in aluminum foil.
4. Place in oven 190°C for about an hour depending on size.
5. Serve with a little salt.

A great variation of this is to scoop up the cooked insides and mix with prepared spaghetti sauce, parmesan cheese and presto, you have spaghetti, a meatless dish that children enjoy! The squash looks just like spaghetti. Students might like to debate whether it belongs to the vegetable group or the bread group. This makes a good creative writing activity as well as a movement activity.

PUMPKIN! PUMPKIN! PUMPKIN! PUMPKIN!

Don't pass up the opportunity for an exciting, learning experience by not going to a market, store, or farm to pick out some pumpkins in the fall.

Children of all ages can learn something by using a pumpkin. If students make jack o'lanterns by cutting the pumpkin, in a few days it will be molded. It is a good experience for children to see that, but if you can only afford to buy one, decorate it. Have a contest and have the children look at the shape of the pumpkin purchased. They draw the pumpkin and then decorate it how they would like to decorate the real pumpkin...using yarn, buttons, magic markers, etc. All the drawings are put together and numbered (no names). The children then vote by number for which picture they think is best. Construct a voting booth with a ballot box. The picture with the most votes is declared the winner. That person reveals himself and solicits help in decorating the pumpkin according to his drawing. After Halloween is over, the learnings flow out of that pumpkin.

Geometry, counting, equivalence, place value, measuring, weighing, largest, smallest, greater than, less than, money, science, economics, and many language arts experiences can be demonstrated with a pumpkin. It still will make good pumpkin bread, pumpkin pudding, pumpkin soup or a pumpkin pie.

HOW TO INTEGRATE THE FRUIT AND VEGETABLE LEARNING ACTIVITIES

Math

If you have 8 pieces and need to serve 24 children, how can you cut them so each has an equal amount?

Is it easier to cut the product crosswise or lengthwise? Discuss fractions.

How much would this snack cost? Check the prices of the products.

How much does the fruit or vegetable weigh?

Metric volume and weight measures can be easily and interestingly demonstrated.

Fruits and vegetables are easy to group by size, color, texture and flavor. You can therefore demonstrate sets.

Nutritional labels apply metrics (grams of protein, fat, etc.) and percentages (nutrient content per serving).

Add the number of vegetables brought to class. If the class will work with one a day, how many days will it take to do this project? If we work with two a day, how long will it take? For the younger children, draw pictures or use the actual foods to group and demonstrate this concept.

Compare the cost of canned products, frozen products and fresh? Which are least expensive?

Make a bar graph of the number of children who liked each product raw. Another bar graph of the children who liked the product in a recipe. Compare the graphs.

Measure out greens. Observe amount before cooking and after cooking.

Learn about time by observing and recording the number of minutes each product took to cook.

Science

How can you get bananas to ripen or turn yellow quicker? (Store at room temperature.)

Why do we wash fruits and vegetables? (dirt, pesticides, germs)

Many fruits and vegetables have seeds that can be planted. Soak the seeds overnight before planting. Support the sprouts with popscicle sticks.

Why do most fruits turn brown when exposed to air? What can you do to prevent this?

*Fruits such as apples, pears, bananas, and peaches have a low acid content. To prevent them from turning brown, treat them with an acid fruit juice such as orange, lemon, or pineapple. A commercial ascorbic acid (Vitamin C) preparation such as Fruit Fresh can also be used.

How do different fruits grow?

*Some are grown on trees (apples, peaches, oranges, etc.), some on bushes (blueberries, blackberries. gooseberries, etc.), some are grown on vines (strawberries, melons, etc.).

Discuss or research the seasons and the climate in which fruits grow best.

*In Illinois fruit is grown in the spring and summer when the temperature is warm. In Florida, Texas and California, fruits grow all year round. Examples would be oranges, grapefruit, lemons, limes, strawberries. It requires warm weather for fruit to grow.

Demonstrate how fruits can be dried thus changing form: plum to prune, grape to raisin.

Talk about how energy can be saved when cooking. Putting lids on pans, turning off oven five minutes before squash is to be done (electric stove). Why not on a gas stove? (flame goes out immediately)

Discuss the necessity for proper care and handling of vegetables to maintain freshness and quality of products.

Most vegetables are stored in a refrigerator. Before placing them in a refrigerator, check for bruises, blemishes, dirt, or imperfect leaves. Potatoes, onions, acorn and butternut squash are stored in a cool, dry, dark place.

Let the children discover and then discuss how heat changes food and why only a little water and no salt is needed when cooking vegetables.

Discuss how each demonstrated vegetable grows. Which ones grow above the ground, which ones below?

Discuss the danger of eating wild mushrooms. Many mushrooms are edible, but only an experienced mushroom-hunter can determine which of these umbrella-like fungi are safe and which are poisonous.

Dry some of the greens. Talk about how spices are obtained.

Social Studies

Get an outline map of the world and locate all the places where the ingredients for the recipe are obtained.

How are fruits and vegetables transported?

*Truck, train, plane, boat.

What workers are involved in fruits from the seed to the product on your table?

*Farm workers (plant, pick), packers (pack fresh, can, or freeze), processor, transportation agent, grocer, food techologist, etc.

Locate countries from which different fruits come.

*bananas - Central and South America
pineapple - Hawaii
grapes - Italy

kiwi - New Zealand
mandarin orange - Japan and China
valencia orange - Spain
avocado - Mexico
figs - Mediterranean countries
melons, strawberries, and citrus fruits - Mexico

Find the states which grow fruits and which states grow the most of each kind.
Florida - citrus fruits, mangoes
California - citrus fruits, strawberries, apricots, peaches, nectarines, grapes
Texas - citrus fruits
Massachusetts - cranberries
Michigan, Washington - apples, cherries
Louisiana, Mississippi - melons
Illinois - peaches, melons, apples, strawberries
Washington - pears
Arizona - melons and citrus fruits

Research which fruits are seasonal and which are available the year round.
*Year round fresh fruits are apples, bananas, citrus fruits, avocado and pineapple.
Seasonal fresh fruits are strawberries, melons, pears, peaches, grapes, and cherries.

Children can make reports on the different vegetables...finding out which states grow the most of these vegetables, how the vegetables are harvested, etc.

Arizona - lettuce
California - carrots, lettuce, broccoli, asparagus, beans, tomatoes, potatoes
Florida - beans, tomatoes, sweet corn
Illinois and other Midwest states - tomatoes, sweet corn, beans, peas, potatoes, soybeans
Idaho - potatoes
Texas - onions and other root vegetables

Talk about truck farms, vegetable markets.

Health/Safety

Orange juice is highest in what vitamin? (Vitamin C)

What are some ingredients you could add to the recipe to make it meet the needs of more of the basic food groups? Encourage children to think of these ideas.

All fruits are good for you. Why?
*They are high in vitamins such as A & C and provide moderate amounts of B vitamins. They also provide minerals such as iron and calcium.

Compare the nutrients in various fruits and vegetables.

Language Arts/Creative Thinking

Introduce new vocabulary words such as: texture, size, flavor, smell, feel, taste, cut, pinch, dash, steamer, grater, parer, strainer, boiling, steaming, firm, crunchy, bitter, etc.

Future, present and past tenses of verbs can also be taught...We will cook, it is cooking, it has cooked, etc.

Learn sequence. Wash vegetables, then pare, then wash, etc.

Respond to verbal or written questions about the activity. For example questions like:

The skin of a cucumber can be eaten.	yes	no
You should throw away the liquid in which vegetables are cooked.	yes	no
You can make a rose from a radish.	yes	no

If you could be one of the vegetables, which one would you be? Why?

Write a TV story about how people abuse fruits and vegetables.

Have each child pick a fruit or vegetable and try to prove to the others that his/hers is better. Make a speech about why you think that product is the best, or have a debate with a friend.

How many words can you find in the words "fruits and vegetables."

Make up a play.

Encourage students to read the recipe and package directions.

Practice writing recipes in a cookbook or on recipe cards.

Make up as many different names for recipes as you can.

Have children pretend they are a vegetable or fruit. Have them write stories about how it feels to be prepared into a recipe. What other ingredients will they meet? Are they glad to make someone healthy? Which nutrients are they most proud to supply?

Have children pantomime walking on banana peels.

Have children make up sentences in which each word starts with the letter of a chosen ingredient: For example:

Brave banana bought baby bottles.
Oscar orange opens oatmeal.
Wally Wheat germ wants water.

Brainstorm all the ways specific fruits and vegetables can be used alone or together.

Demonstrate the use of adjectives when describing fruits and vegetables.

Role play being fruits-have the rest of the class guess.

Have children find books about fruits.

Have children start with "a" and see if they can name a fruit for each letter. See appendix.

Take field trips to an orchard, berry farm, farmer's market, neighbor's garden etc. Write about the trip.

Write thank you notes to people who made the trip possible.

Motor and Perceptual Skills

Practice how to pare, slice, peel, grate, cut, etc.

Have children close their eyes or blindfold them and see how many fruits and vegetables they can identify by smell, feel, or taste.

MEAT GROUP ACTIVITIES

PEANUT BUTTER MADE IN A GRINDER

To prepare something from the meat group that doesn't take too much time, try making peanut butter. Several learnings and a great sense of accomplishment are felt by the children when they make this product and find that it tastes better than the purchased peanut butter.

Ingredients:

250 g peanuts in the shell
have vegetable oil ready but don't use unless necessary

Utensils:

grinder with the medium-size blade (use a fine blade for second grinding if a smoother peanut butter is desired.)
bowl

Procedure:

1. Shell toasted peanuts.
2. Take the skins off.
3. Put the peanuts through the food grinder.
4. Catch the peanut butter in a bowl.
5. If a smoother peanut butter is desired, change to a fine blade and put the peanut paste through the grinder again.
6. If the peanut paste is too dry, add a small amount of oil.

HOMEMADE PEANUT BUTTER IN A BLENDER
(takes 1 minute)

Ingredients:

150 g spanish peanuts
15 ml oil

Utensils

blender
spoons
spatula

Procedure:

1. Remove all peanut skins.
2. Put the peanuts into a blender. Cover and whirl at highest speed for 5 seconds.
3. Shut off the blender, remove the cover, and add the oil if desired.
4. Cover the container and whirl at high speed for 10 seconds. Switch the motor to low and continue until the nuts are ground into peanut butter.

Variation:

add wheat germ

Chicken Soup

You might use wings and backs for economical reasons and after the students have deboned the cooked meat, soak the bones in bleach and then boil them. They can be used to make dinosaur-type artwork.

Individual Pizzas

In an assembly line fashion, the children can choose what they want to add. The canned biscuits can be used for the dough. English muffins might also be used, although they are more expensive. Let the children discover that pizza can be a well balanced meal.

Camp Stew

Ground beef with tomatoes and vegetable soup served on whole wheat bread. Adding a little basil gives it a good flavor.

Protein Salads

Egg salad, tuna salad, deviled eggs and creamed chipped chicken, turkey, egg, ham or chipped beef also can be made in the classroom. The latter is good to teach the making of the basic cream sauce and stimulate a discussion about what could be added to the recipe.

LILY SANDWICH

Ingredients:

6 hard cooked eggs
30 ml mayonnaise
2 ml salt
dash of pepper
10 ml vinegar
8 long thin carrot sticks
16 thin dill pickle slices (sliced lengthwise)

Utensils:

pan to boil eggs
metric measuring spoons
scraper
knife
fork
toothpick

Procedure:

1. Cook eggs by bringing water to boil, cover pan tightly and remove from heat, allow to sit 20-30 minutes. Then rinse and peel eggs.

2. Chop the eggs and add mayonnaise, salt and pepper. Add vinegar and mash into a smooth paste.

3. Trim crusts off bread and spread egg paste on bread slices.

4. Fasten two opposite corners together with a toothpick.

5. Decorate with a carrot stick for the center of the lily and pickle slices for leaves.

CHILI

Ingredients:

1 kg ground beef
3 (1-lb.) cans chili beans
3 (1-lb.) cans tomatoes
10 ml salt
15 ml chili powder

Serves 25 medium-sized bowls

Utensils:

electric skillet
can opener
spoon
fork
cups
measuring spoons

Procedure:

Brown meat until red is gone. Drain off all grease. Open all cans. Pour over meat. Stir. Add seasonings. Simmer for 2 hours.

Discuss the name chili. Do Mexicans really eat a lot of chili? What can you serve with chili to make a balanced meal?

TUNA CASSEROLE

Ingredients:

2 (6 1/2 oz.) cans of tuna fish
2 cans cream of mushroom soup or cream of chicken soup
1 can of milk
salt
pepper
parsley flakes
cooked frozen peas (can be added if desired)

Utensils:

can opener
casserole dish
spoon
pan to cook peas with steamer

Procedure:

1. Open all cans.
2. Pour into slightly greased casserole dish.
3. Mix thoroughly, but gently with milk.
4. Add seasonings. Stir lightly.
5. Put in oven 160°C for about 30 minutes.

Biscuits can be put on top and sprinkled with cheese.

Talk about why tops of cans should be wiped off with a clean damp cloth.

TACOS

Ingredients:

2 1-lb. cans tomatoes-drained
625 g ground beef
2 1-lb. cans hot or plain chili beans
chili powder
taco shells
salt
pepper
shredded cheese
lettuce
fresh tomatoes (if in season)

Utensils:

can opener
electric skillet
spoons
oven
knife
grater for cheese

Procedure:

1. Brown meat in electric skillet at 160°C until it looses its red coloring; thoroughly drain.
2. Add tomatoes and beans and seasonings.
3. Stir until bubbly, reduce heat and simmer.
4. Heat taco shells if desired for added crispness.
5. Shred cheese on grater, shred lettuce and cut tomatoes in small pieces.
6. Assemble - meat in shell, lettuce, tomatoes and top with cheese.

BEEF STEW

A Way to Introduce:

Today we are going make beef stew. What will we need to make it?

This can be written on the board or announced. Children give the ingredients they think would be needed to make the beef stew. List them on the board under the heading - Ingredients. Record all suggestions. Then talk about each one. You might tell the children that they have to find the ingredients that you have hidden. Write cards with directions as to the location of the different ingredients. For example:

> You will find this ingredient on the northeast side of the room. It is in a brown bag on the right side of the third shelf. When you find it, go back to your seat and don't tell anyone what you have.

Individuals, or a group of three or four can be given the card. After each individual or group returns with their ingredient, have the ingredients brought to the front of the room to be sorted.

Next, decide which utensils you will need. A good dish to use is the crock pot. Many children have not had the experience of seeing a slow cooker or crock pot. Talk about why it is used and what can be made in it.

Possibly divide the class into groups. Assign each group a duty such as to peel potatoes, scrape carrots, trim the fat from the meat, fry the meat, clean the celery, open the cans and mix the ingredients.

Ingredients:

1 kg (2 lb) stewing beef, cut into 2-5 cm cubes
60 g flour
10 ml salt
2 ml pepper
45 ml shortening

Ingredients: (Continued)

6 carrots, cut into 2-5 cm pieces
120 g sliced celery
1 (28-ounce) can tomatoes
1 bay leaf
80 ml water

Utensils:

knife for cutting beef
scrapers
paring knives
electric skillet
can opener
bowl or bag for mixing flour and seasonings
measuring utensils
crock pot

Procedure:

1. Trim fat from beef cubes.
2. Mix flour, salt and pepper together and coat beef cubes with mixture. This can be done in a bowl or a bag.
3. Heat shortening in skillet and brown beef.
4. Drain off fat.
5. Clean carrots and celery and cut into pieces.
6. Combine all ingredients except water in cooker.
7. Add water to skillet, scrape brown bits from bottom, and add to cooker.
8. Cook on low 10-12 hours (good to do overnight) or on high 5 hours. Serves 4-6, or many small portions.

Other Meat Group Suggestions by Children:

peanuts
sunflower seeds
sandwich spread of peanut butter combined with raisins or dates
deviled ham on crackers
hard boiled eggs - fun to color at Easter time
scrambled eggs when the children blow out the insides of the egg through pin holes and preserve the shell for decorating.

HOW TO INTEGRATE THE MEAT GROUP LEARNING ACTIVITIES

Math

Weigh the peanuts before they are ground, then weigh the finished product. How has it changed?

How would you increase the recipe?

How much money could be saved by buying the generic brands instead of name brands?

Use the clock to determine when the product should be ready to eat.

How many eggs in a half dozen; a dozen?

How many halves in a whole?

How much does this recipe cost? How could you economize?

What shapes have you made with the recipe?

Graph the number of students that liked, and didn't like the product.

Science

How do peanuts grow? (In the ground) Where? (North Carolina and Georgia) Why are the peanuts in a shell better than the canned peanuts? (less salt and oil) What other things can be done with peanuts besides eating them? Check the encyclopedia. You'll be surprised!

Talk about the necessity of proper refrigeration of meats.

What happens to opened cans when tomatoes are left in them?
* Refrigeration prevents spoilage, but opened cans with tomatoes left in them turn dark. Tomatoes may have "off" taste but are not harmful.

Talk about how the egg changes during cooking.
* Eggs coagulate when cooked and the degree of coagulation depends on the length of cooking time.

Discuss 'steam', 'evaporation' and 'smoke'.

Use the thermometer to determine the temperature of the boiled water or pan mixtures.

Use vinegar to locate sour taste buds, salt to locate salt taste buds.

Plant some carrot tops in dirt and some in water, observe, make a graph of growth. See Appendix.

Put out leftover bread crust to attract birds.

Social Studies

Discuss the ethnic origin of tacos, chili, etc.

Consider the diverse ethnic foods available at fast food restaurants, frozen food sections and prepared from scratch at home.

Discuss the concept of America as a "melting pot" of many cultures.

Health/Safety

Compare the taste of a name brand and a generic brand peanut butter with the homemade peanut butter. Check the ingredients of the name brand and the generic. Was the homemade more nutritious?

What could be added to the stew to make it more nutritious, more flavorful?
* Potatoes, zucchini squash, rice, onions, green beans, spices such as cumin, cayenne pepper, basil, parsley.

What nutrients will be obtained from the prepared product?

Why do we trim fat from meats?
* To decrease the amount of fat in the product.

Why did we use the celery leaves?
* Celery leaves add nutrition and flavor.

Why should you scrape vegetables instead of peeling?
* Scraping vegetables retains more nutrients than peeling but still cleans away exterior dirt, pesticides, and germs.

How has the preparation of the raw ingredients affected the nutrients available in the final product?
* The availability of some nutrients is decreased due to cooking.

How should this product be safely stored?

Which of the basic food groups does this recipe represent? How could you add more groups?

Language Arts/Creative Thinking

Have the children write the letters of the product vertically on their paper. For each letter have them think of a word to describe the product.

Make up a riddle for each ingredient.

Write a letter to the food service director suggesting the product would be a good dish to serve in the lunchroom. Invite them to your class as a guest speaker on "Menu Planning."

Learn to chop, mix, peel, scrape, slice, mash, trim, fasten, and center.

Describe the different ways can you cook an egg?

* Eggs can be fried, poached, scrambled, hard and soft cooked, or made into omelets.

How many different ways can you think of to use some of the ingredients such as eggs, carrots, vinegar, salt?

* Eggs can be used as a garnish, leavening agent (angel food cake), thickening agent (custard), emulsifying agent (mayonnaise), for color and flavor (cakes), and for coating (onion rings).

* Carrots can be used in salads, vegetable dishes, soups, stews, snack foods, etc.

* Vinegar can be used to pickle cucumbers, sour milk, make salad dressing.

* Salt can be used to preserve foods such as bacon or ham. Iodized salt provides iodine which is an additive and a nutrient.

Brainstorm on different names for the product.

What could you serve with this recipe?

What are some different ways of serving it? (In a cup, on a platter, etc.)

Art

Use peanut shells for finger puppets. Decorate with magic markers and have a nutrition play. Use crushed peanut or egg shells for mosaics or textured pictures.

Prints could be made from the carrot/celery stubs. Dip in tempera paint and print on paper. Makes nice note cards, stationery or wrapping paper.

Put pieces of carrot tops on a folded piece of paper. Then cover with contact. This makes a nice card. Tops can also be used for printing by carefully dipping the tops in paint then putting another piece of paper on top of the paint covered green tops and lightly pressing.

Discuss the texture of the different ingredients.

Use egg cartons for sculptures, games, etc.

Economics

Compare the cost of homemade vs. ready-made peanut butter; compare the taste.

Talk about the energy saved when using the slow cooker. Discuss cases when this would not be true. (Low setting uses less energy than a 100 watt light bulb.)

Discuss if this would be considered an economy meal. Why? Why not? When might it not be?

Talk about generic brands and discuss why using a generic brand of tomatoes would be economically wise. (Generic brands are items that are packaged

without a brand or store label and may not be as high in quality as name brands. They do not have fancy pictures or recipes. Because the tomatoes will be cooked and not retain their shape after cooking, quality is not that important in this finished product. The nutritional quality does not differ.)

Motor and Perceptual Skills

Learn the proper use of knives. How to chop, cut, slice and pare safely.

Demonstrate the necessity of putting pan handles to the inside and that pans and lids get hot.

Demonstrate that steam can burn.

MILK AND CHEESE GROUP ACTIVITIES

The Milk and Cheese group is the major source of protein and calcium for growing children. Milk also supplies Vitamin A and D, phosphorus and riboflavin. The fat content varies according to the type of milk. If the classroom has a child that is allergic to milk or even slightly sensitive, be sure to have something else for this child (fruit juice, ice tea, water, etc.).

Because the following products are easy to prepare, the assembly line method might be used or set up a center for the children to make their own. The milk group lends itself to a sort of "spin off" from cooking with the whole class. Allow the children to make their own group of 3 to 4 children. Have them find recipes from this group. When they find a recipe they think they would like to make for the whole class, review it with them. Check it over for expense, convenience in making and the capability of the children who will be making it. If it fits these criteria, have the group sign up for a day they want to make it for the rest of the class. The group should be responsible for everything from finding the ingredients to cleaning up!

Another way to introduce the product to be prepared, is to display three recipes and all of the ingredients for only one. Then have children decide which recipe they can make that day by reading the recipe and checking the ingredients that are out. Then have them make a list of the ingredients that they would need to make the other two receipes. You may be surprised at how well even your slower readers can do this!

FRUIT SHAKE

Ingredients:

500 ml cold juice (orange, grape, apricot nectar, pineapple, etc.)
40 g powdered milk
1 drop vanilla

Utensils:

1 liter container with a tight fitting lid

Procedure:

Combine all ingredients in a container, secure the top tightly and shake until mixed. Serves 4-6, or many small portions.

For preschool kindergarten children this is a fun activity to do if you have enough containers...plastic ones, small cups or bowls with tight fitting lids. Measure out the powdered milk in each child's container. Have the child pour in the juice, seal (be sure and check the seal) and then put on a record like, "Seventy-Six Trombones" and have the children march around shaking their container.

STRAWBERRY YOGURT

Ingredients:

150 g strawberries if in season or other berries or bananas
25 g powdered milk
250 ml (1 carton) yogurt, plain or flavored

Utensils:

cups
bowl
spoon
potato masher

Procedure:

Mash fruit. This is fun to have a child do while others count, or a child can be given a problem like: mash 5 plus 3 times. Then give to another child and give another problem. Beat in powdered milk. Add yogurt. Serve in small cups...makes 6-8 servings, or many small portions.

BUTTER*

Ingredients:

whipping cream
salt
yellow food coloring

Shake the cream in jars or sealed containers until it is formed. Rinse with water and press out excess milk with spoon. Add a little food coloring and salt to taste. *Belongs in the Fats, Sweets and Alcohol group.

YOGURT

Ingredients:

1 liter milk
15 ml commercially prepared plain yogurt (with active culture; check label)

Utensils:

pan
wide mouth thermos
spoon

Procedure:

1. In a pan, heat 1 liter milk to lukewarm.
2. Dilute yogurt into small quantity of milk.
3. Add to milk.

Procedure: (Continued)

4. Pour mixture into a wide-mouth thermos.
5. Secure lid. Let set undisturbed for 6-8 hours.
6. Refrigerate.

EASY COTTAGE CHEESE

Ingredients:

500 ml milk
salt
15 ml vinegar

Utensils

pan
spoons
strainer

Procedure:

1. In a pan, heat milk until bubbles begin to form.
2. Remove from heat and add vinegar.
3. Stir. Strain cottage cheese curds from liquid whey.
4. Add a little salt. Refrigerate.

Good to teach new words like curds and whey. Read the nursery rhyme Little Miss Muffet and act it out. Older children could make up another rhyme, song, play, etc.

EGGNOG

Ingredients:

2 eggs
75 g sugar
500 ml cold milk
5 ml vanilla
nutmeg

Utensils:

bowl
spoons
cups
glasses

Procedure:

Put in a container or glass and shake. Sprinkle with nutmeg. Serves 2, or many small portions.

DREAMYSICLES

Ingredients:

250 ml fruit juice
500 ml (2 cartons) plain yogurt
5 ml vanilla

Utensils:

cups
bowl or sealed container
spoons

Procedure:

1. Pour all ingredients in a bowl and beat, or in a container with a lid and shake.
2. Pour into ice-cube trays or small paper cups.
3. Freeze until firm.

HOT COCOA

Ingredients:

5 ml cocoa
10 ml sugar
250 ml milk (have some of the milk on low heat)

Utensils:

individual cups
spoons

Procedure:

1. Put the cocoa and sugar into a cup with a spoonful of milk.
2. Stir to make a paste.
3. Pour the cup full with heated milk
4. Stir well.

If the milk is heated on too high of temperature, it will scorch the milk and not taste good.

YOGURT PIE

Ingredients:

500 ml (2 cartons) yogurt any flavor
80 g crushed fruit (1 very small can) optional
1 container non-dairy whipped topping
1 graham cracker pie crust (graham crackers crushed with only enough margarine to hold loosely...no sugar needed.)

Utensils:

bowl
rolling pin to crush crackers
plastic bag to crush crackers in
spoon
cup

Procedure:

1. Combine the yogurt, fruit and non-dairy whipped topping
2. Pour into pie crust.
3. Freeze about 4 hours.
4. Remove from freezer and place in refrigerator 30 minutes before serving.

If the temperature is cold outside, freezing or below, this can be put outside your classroom window. Be sure and cover with a clear plastic wrap. The children might enjoy discussing and writing down different combinations of fruits to add to different yogurts.

HONEY NUT ICE CREAM

Ingredients:

1 envelope unflavored gelatin
60 ml water
500 ml milk
125 ml honey
250 ml evaporated milk
15 ml vanilla extract
25 g shelled nuts

Utensils:

bowl
ice cube trays
spoons
egg beater
cups

Procedure:

1. Put the gelatin in a cup and pour the water over it.
2. Heat 250 ml of milk until warm.
3. Add the honey and stir. The honey might make the milk curdle or become lumpy, explain that honey is a little bit acid. Beat.
4. Add the rest of the milk, vanilla and evaporated milk.
5. Mix all of this and pour it into 2 ice cube trays.
6. Freeze until mushy.
7. Take it out, put into a big bowl, and beat with an egg beater until it is soft and fluffy.
8. Add the nuts. Put the mixture back in the trays and let it freeze.
9. Discuss other variations.

CHOCOLATE DRINK ICE CREAM

Ingredients:

4 liters low calorie chocolate milk drink
6 eggs
1 can milnot

Procedure:

Mix this all together in the ice cream can. Put in the ice cream tub, add ice and rock salt...crank...crank...or use an electric freezer.

Other Quick and Easy Foods That Can Be Made To Meet The Needs Of The Milk and Cheese Group

-cheese dips - experiment with adding shredded cheese to different bases- such as sour cream, sour supreme (imitation sour cream), yogurt, cottage cheese
-assorted cheeses on crackers
-cheese and fruits
-custard
-pudding from scratch
-parfait of cottage cheese, yogurt or ice milk combined with fruit, sprinkled with cinnamon add-a-crunch, wheat germ, nuts.
-cheese cubes stuck on pretzel sticks
-cheese kabobs - alternating cheese with fruit or vegetables

HOW TO INTEGRATE MILK/CHEESE GROUP LEARNING ACTIVITIES

Math

Have children practice counting with the selection of recipe ingredients.

Compare Celsius and Fahrenheit freezing temperatures.

Pour out and count the servings from a large milk carton.

Make charts of the nutrition information on individual milk cartons.

Science

Discuss the differences between an active vs. inactive yogurt culture.

How does vinegar affect milk? What other acid foods might do this?

Discuss freezing temperatures and the affect this has on the yogurt pie.

Discuss ice crystal formation in ice cream preparation.

Discuss why rock salt is used to reduce the temperature of ice even lower.

Social Studies

Discuss the origins of yogurt.

Consider the wide variety of cheeses and ethnic origins of some.

Health/Safety

Talk about the reason why its not a good idea to save products with frozen eggs (chocolate drink, ice cream) for a long time.

Consider the chalky substance (calcium) visible (white) in milk that turns into bones and teeth in the body.

Language Arts/Creative Thinking

Describe and demonstrate curds and whey.

Brainstorm on ingredients that could be added to the recipes.

List on the board all the foods that are made with cheese. (Pizza, cheeseburgers, cheese omlets, etc.)

Ask children to observe how milk is used in their home. (with cereal, coffee, recipes, in drinking glasses, etc.)

BREAD AND CEREAL GROUP ACTIVITIES

If you've been successful with yeast breads, you might attempt them in the classroom. Frozen bread dough might be used also. Let it rise and knead it down to get that experience, shape it, then let it rise again and bake. Many learnings can be attributed to working with the bread and cereal group. Talking about the grains, their variety, how they are grown, and where they are grown helps the children obtain a better understanding and appreciation for these grain products. Many children have no idea that bread is made from flour and that flour comes from the wheat, rye, oat, or corn grain. It is often quite a revelation for them to discover this.

Many children are familiar with cereals through TV commercials. They are, therefore, a good food product to introduce the available label information. Ingredients are listed on the package in predominating order. A good activity is to bring a number of boxes of cereals and have the children read the first three ingredients and the nutrient charts. Shredded wheat makes a good snack and it is great for integrating many of the disciplines in the curriculum.

BISCUITS

Ingredients:

250 g unbleached white flour
18 ml baking powder
5 ml salt
8 ml oil
185 ml milk

Utensils:

measuring cups and spoons
sifter
bowl
electric skillet - heated at 160°C

Procedure:

1. Measure and sift dry ingredients.
2. Stir in liquids and mix lightly, only about 20 strokes.
3. Use as little flour as possible on a table top. Have children just barely knead and roll the dough about 1 cm thick. Just barely mixed dough makes fluffy biscuits. If they are kneaded until very smooth the biscuits will be short and tough.
4. Cut in any desired shape. Around Valentine's Day use a heart shape cookie cutter. Other ideas include using a tree, a star, or a rabbit for other occasions.
5. Cook in lightly greased electric skillet.
6. Let biscuits brown and raise.
7. Turn and cook the other side. Makes about 20 biscuits.

Refrigerated biscuits can also be done this way.

Demonstrate the difference between baking powder and baking soda. Baking powder is a combination of soda, dry acidic powder and cornstarch; baking soda is the chemical compound, bicarbonated soda. Mix baking soda with

vinegar to demonstrate carbon dioxide release. Mix both baking soda and powder with plain water to demonstrate the need for an acid ingredient (molasses, lemon juice, buttermilk etc.) when cooking with baking soda.

Quick Bread

This recipe does not require yeast and will rise in the oven.

Ingredients:

- 430 g whole wheat flour
- 28 g wheat germ
- 250 ml molasses
- 500 ml buttermilk or yogurt
- 10 ml soda
- pinch of salt
- raisins and nuts (optional)

Utensils:

- bowl
- measuring cups and spoons
- loaf pan
- oven

Procedure:

Mix all ingredients together. Bake in one large or several small greased pans at 190°C for 30 to 40 minutes.

MUFFINS

Ingredients:

- 1 egg beaten
- 250 ml milk
- 30 g melted shortening
- 264 g sifted whole wheat flour (flour to baking powder ratio must be accurate)
- 28 g wheat germ
- 15 ml baking powder
- 2 ml salt
- 50 g sugar or 60 ml molasses

Utensils:

- measuring cups and spoons
- bowl
- oven
- muffin pans
- You might use the aluminium foil kind and wash them after each use.

Procedure:

1. Combine milk and egg.
2. Stir into dry ingredients.
3. Add shortening.
4. Stir lightly. Batter should still have lumps, again overworking batter yields a tough product.
5. Fill small greased muffin tins about 3/4 full.
6. Bake in 200°C oven 10-15 minutes. Makes about 2 dozen.

This activity is good to teach how many are in a dozen, 2 dozen and 1/2 dozen. Learn that things other than eggs come in a dozen. Name some bakery products.

PERSONALIZED PRETZELS

Making pretzels in the shape of the letters or initials of the students names is a fun activity. This is a good activity for the preschool or kindergarten child to learn the shapes of letters before actual printing them.

Ingredients:

1 package yeast
375 ml warm water
5 ml salt
15 ml sugar
500 g flour
1 egg
coarse salt (optional)

Utensils:

bowl
spoon
cookie sheet
measuring utensils
waxed paper

Procedure:

Soften yeast in water. Add sugar and salt. Stir in flour. Put the dough on waxed paper and knead until it is smooth. Break off pieces and shape them into letters...not too thick or they'll be doughy, not too thin or they'll be brittle. Place them on a cookie sheet, brush them with the beaten egg, sprinkle with salt if desired. Bake at 220°C 12-15 minutes or until golden brown.

NAVAJO FRY BREAD

This is a good activity to do when you are studying Indians or foods of different cultures.

Ingredients:

250 g white flour
20 g powdered milk
5 ml salt
5 ml shortening

Utensils:

bowl
spoons
cups
waxed paper
electric skillet

Procedure:

1. Combine flour, powdered milk, salt and shortening.
2. Add lukewarm water to make a soft dough.
3. Pat out dough with hands until thin, and shape into a patty about 6 cm (1/4 inch) thick.
4. Fry in hot shortening about 2.5 mm (1 inch) deep in 160°C electric skillet. Brown on both sides and serve with applesauce.

This is not a particularly nutritious recipe. Talk about why. have the children brainstorm ways they can make it more nutritious. Try one of the ways they suggest, possibly cheese, peaches, nuts, etc.

CORNBREAD

Cornbread is another food that can be made when studying Pilgrims or Thanksgiving. Discuss the relationship between the Indians and Pilgrims - their sharing of products, etc.

Ingredients:

150 g yellow corn meal
50 ml vegetable oil
2 ml salt
20 ml baking powder
1 egg
25 g flour
250 ml milk

Utensils:

bowl
measuring utensils
square cake pan (20cm x 20cm x 5cm)
oven

Procedure:

1. Mix together corn meal, flour, baking powder and salt.
2. Add milk, egg and oil.

Procedure: (Continued)

3. Beat until fairly smooth.
4. Pour into greased pan.
5. Bake at 220°C for 20-25 mintues.

CINNAMIN ADD-A-CRUNCH

A Way to Introduce:

We will make a snack today. Put out the ingredients for this product. Challenge them to guess what they will make from the displayed ingredients.

Ingredients:

90 g quick or old fashioned uncooked oats
70 g firmly packed brown sugar
80 ml melted margarine
40 g wheat germ
2 ml cinnamon

Utensils:

bowl
spoon
electric skillet
cookie sheet

Procedure:

Combine all ingredients, mix well. Cook in electric skillet turned to 160°C, stirring constantly for about 5 minutes or until golden brown. Spread onto ungreased cookie sheet to cool. Makes 2 cups.

How could this be used? (top of yogurt, ice cream, pudding, fruits or fruit salads). What food groups does this fit into? (cereals, fats-sweets-alcohol).

Oatmeal is a quick snack to fix in the classroom. It only requires boiling water and the oats. The addition of cocoa makes it especially appealing. For the maximum use of protein, cereals should be eaten with milk.

Other Foods That Are Quick and Easy To Fix
in the classroom from the bread and Cereal Group

raisin bread,
sandwiches-try the bread toasted, grilled, waffled
English muffins
crackers-soda, wheat, rye
graham crackers (Be sure to have someone look up 'Graham' in a good dictionary.)

HOW TO INTEGRATE THE BREAD AND CEREAL GROUP LEARNING ACTIVITIES

Math

Multiply or divide recipes.

Demonstrate fractions with a dozen eggs, muffins etc. Discuss 1/2 = 6/12, 1/4 = 3/12 etc.

Practice the use of the clock. "If we put the product in at 2:00, what time should we take it out?"

Science

Discuss where grains grow and what the farmer needs for a good harvest.

Discuss what makes the biscuits puff up (leavening agent - carbon dioxide given off when liquid is added and steam from evaporating fluids).

If possible, get some wheat seeds and plant them. Health food stores are a good source. Prepare the children for the fact that some may not grow.

Talk about the difference between whole wheat and enriched white flour. (Whole wheat uses the entire kernal while enriched uses only the endosperm, but the nutrients lost in milling are replaced.) Discuss where wheat germ originates. How do we get molasses? (liquid remaining as a result of cane sugar processing). Look it up in the encyclopedia.

Social Studies

Navajo fry bread and cornbread can be used to demonstrate the cultural influence of the American Indian.

The process of growing wheat from the seed to the flour to the cereal can be discussed.

How does cinnamon grow? (bark of tree). Where? (Southeast Asia and Indonesia).

Health/Safety

Discuss the importance of washing hands before kneading dough.

Discuss the B vitamins (thiamine, riboflavin, niacin). See information at front of book.

Obtain a picture of a kernal of wheat and show them the part that is called the wheat germ. Sometimes the wheat flakes or shredded wheat cereal box has a picture of the wheat kernal. From what grain do we obtain oatmeal? (oats). Ask what else could be added to the recipe to make it more nutritious (nuts, sunflower seeds, raisins).

Language Arts/Creative Thinking

Define words such as: knead, sifted, unbleached, rise, etc.

Talk about not overhandling dough. Experiment with one piece that has been kneaded and handled by everyone. Compare and taste the difference of the finished product with a piece that has not been overhandled.

Cooking can teach consonant blends, suffixes and other grammar. If the children are learning one of these concepts in reading, point it out. For example, how many words can you find in this receipe that have consonant blends, suffixes-what is the root word? How many nouns can you find or verbs, adjectives..other parts of speech? Doing this is a good follow up activity. Have them write the recipe on a card and underline in different colors the different concepts you want to reinforce.

Economics

Convey to the children that everything does not have to be made from "scratch" to be nutritious. Children need to be taught that it is sometimes more economical to use the package mixes rather than from "scratch." Discuss with them the reasons this is true. (Ingredients too expensive, time not available.)

Children might investigate the cost of a serving of packaged cereals, toast or hot cooked cereals. Children might consider the numerous grains that can be cooked to make a good meal which are not limited only to breakfast. Cereals make a good fast meal any time of the day, especially when topped-with fresh or dried fruits, nuts, bananas or diced apples. Have the children suggest other toppings.

APPENDIX

Food Discussion Topics

1. What are some good snacks to eat after school?
2. What are some good nutritious foods you could serve for your birthday party?
3. What are some good nutritious foods you could take on a picnic?
4. What are some good nutritious foods you could put in your lunch box?
5. What are some foods that are frozen?
6. What are some good raw foods?
7. What are some good foods that have to be cooked?
8 What are some good foods that are red? green? white? etc.
9. What are some good foods that come in cans, cartons, bottles?
10 What are some good foods that you can eat with your fingers; that you can't eat with your fingers?
11. What are some good foods that are sour?

The class could be divided into teams and these questions could be asked. The team that can't think of any or gives a wrong answer gets a point. The team with the least points wins.

These questions could also be given as research questions.

Consumer Activities

Secure some menus from different restaurants. Make out questions that the children can answer from the menu. This is a good math lesson with money. Nutrition can be integrated into it by having them choose foods that are low in calories, or contain specific nutrients and yet make a balanced meal according to the basic food groups. A further extension would be to have them choose menus that are not nutritious, high in calories or low in specific nutrients and have them compare the prices. Are nutritious foods more or less expensive at this restaurant?

MENU MATH

Make up menus on dittos. Pass out with questions.

Pizza Parlor Menu

1. You buy the Super salad, and a slice of sausage pizza. What will it cost you? How much change will you get from $2.00?

2. How much does the Super salad and garlic bread cost? If you have only $1.00, can you buy both? How much more will you need?

3. You are treating your family. You order a 12" cheese pizza with extra cheese and 4 garden salads. How much will all this cost? How much change will you get back from $5.00?

Mealtime Menu

1. Write what you would like for breakfast. How much will it cost?

2. Write what you would like for lunch. How much will it cost?

3. Write what you would like for supper. How much will it cost?

4. How much did you spend for all your meals?

Nutriticus Snacks for Introduction of Letters of the Alphabet:

Aa for apples, applesauce, ambrosia (fruit)
Bb for butter, bean salad, blueberry muffins, bananas, (dipped in orange juice and coconut or granola)
Cc for cinnamon toast, carob candy, carrot raisin salad, celery
Dd for date nut bread, date kisses (dates rolled in coconut) deviled eggs
Ee for eggs (deviled), egg nog
Ff for fruit balls, french toast
Gg for granola, gorp (grand old raisins and peanuts), grapes, grilled cheese
Hh for hot crossed buns, honey-nutters, hot chocolate
Ii for ice milk
Jj for juice squares (pour fruit juice into ice cube trays & freeze - insert tooth pick in center)
Kk for fruit kabobs (chunks of apple, banana, oranges, etc.), Kiwi fruit, kumquat
Ll for lettuce salad, liquids
Mm for molasses muffins, marshmallow treats, mustard greens
Nn for nuts, nutbreads (banana nut, zucchini nut)
Oo for oranges, orange-mint tea, oatmeal carob-chip cookies, oatmeal-banana muffins
Pp for pink popcorn, peanut-raisin mix, pretzels, peanut butter, pumpkin pudding, bread/pie/seeds
Qq for quince, quiche
Rr for raisin bars, raisins, rice
Ss for spider cider (add raisins to apple cider - freeze in trays), stone soup, sardines, strawberries
Tt for tacos, tuna fish, tomatoes
Uu for ugly fruit, uncooked vegetables
Vv for vegetable sticks (dip in yogurt)
Ww for walnuts, water, water melon
Yy for yogurt dip
Zz for zucchini

SCHOOL MENU

Use this menu or one from your school.

Monday	Tuesday	Wednesday	Thursday	Friday
Feb. 19	Feb. 20	Feb. 21	Feb. 22	Feb. 23
Cheese Sandwich Carrot Sticks Lettuce Wedges Milk Orange	Hamburger on Bun French Fries Malted Milk	Chicken w/Rice Peas Fruit Salad Slaw Milk	Macaroni and Cheese Bread/Butter Brownie Chocolate Milk	Broiled Fish Vegetable Salad Whole Wheat Bread Apple

1. On which days were the most nutritious meals served? _____
2. On which days were the least nutritious meals served? _____
3. On which day was the most fattening food served? _____
4. Put a star by each food that has Vitamin C.
5. On which day do you like the bread group serving?
6. List six foods you like best.
7. List six foods you do not like.
8. Make some menus you would like to have served in the lunch room.
9. If you could pack your own lunch for the school week, what would you put in your lunch?
10. Invite your food service person to talk about how the meals are planned.

Name _____

Fill in the blanks with 'yes' or 'no'

PUMPKIN

1. We had four pumpkins in our room. _____
2. One pumpkin rotted without even being cut. _____
3. We paid $2.00 for the pumpkins we bought on Halloween. _____
4. We made a jack-o-lantern with one pumpkin. _____
5. We decorated one pumpkin. _____
6. Pumpkins have seeds in them. _____
7. There were ten seeds in all of the pumpkins. _____
8. We made pumpkin pie with one pumpkin. _____
9. We made two loaves of pumpkin bread. _____
10. We put nuts in one loaf of bread. _____
11. We put raisins in one loaf of bread. _____
12. We threw all the seeds away. _____
13. Pumpkin is good for you. _____
15. Pumpkin belongs to the meat group. _____
17. List all the things you can think of that you can make with pumpkin.

Name _____

Fill in the blanks with a 'yes' or 'no'

POPCORN

1. Did we make popcorn Sunday? _____
2. Did we use oil to make the popcorn? _____
3. Did we use hot dogs to make the popcorn? _____
4. Are any utensils needed to make popcorn? _____
5. Did you like gelatin on the popcorn? _____
6 Is gelatin on popcorn good for your teeth? _____
7. Is cheese on popcorn good for you? _____
8. Did you learn a song about popcorn? _____

Answer these questions in sentences:

1. What seasoning did you like best on your popcorn?
2. What seasoning didn't you like on your popcorn?
3. What else could you add to popcorn besides seasonings to make it more nutritious?
4. What else could you do with popcorn besides eating it?
5. Write a story, a poem, a song or a TV cartoon or commercial about popcorn.

NAME_____

Circle all the things that are liquids.

1. water
2. nonfat dry milk
3. butter
4. yeast
5. milk

Circle any ingredients that are used to sweeten.

1. salt
2. sugar
3. molasses
4. flour
5. honey

Yes or No

Would I use an egg beater to knead bread? _____

Would I use a measuring cup to measure salt? _____

Would I knead bread with my dirty hands? _____

Would I measure flour in a measuring spoon? _____

Would I beat an egg with a knife? _____

Would I read the recipe very carefully? _____

Would pretzels be a nutritious snack? _____

Tell me:

What is your favorite recipe to make?

NAME _____

Look the following words up in a dictionary. Write a meaning as it pertains to cooking or tell how that word was used in today's recipes.

1. blend _____

2. gradually _____

3. grease _____

4. coarse _____

5. knead _____

6. dough _____

Name _____

Fill in the blanks with a 'yes' or a 'no'

BEEF STEW

1. We made beef stew in an oven. _____
2. We used hot dogs in the beef stew. _____
3. We put carrots in the beef stew. _____
4. We put potatoes in the beef stew. _____
5. We put grapes in the beef stew. _____
6. Beef stew is fun to make. _____
7. Beef stew contained all the basic four groups. _____

Name other things we could have put in the beef stew.

Number the following sentences in proper order. To make soft pretzels, the first thing I would do is:

_____ Bake in 220°C oven for 12-15 minutes.

_____ Divide into balls of dough and twist into any shape.

_____ Read recipe to determine what ingredients I need.

_____ Shop for ingredients.

_____ Lay on greased cookie sheets.

_____ Gather dirty bowls and materials.

_____ Check cupboard to see what I have on hand.

_____ Gather bowls and supplies.

_____ Brush with beaten egg and sprinkle with salt.

_____ Make shopping list.

_____ Return supplies to cupboard.

_____ Wash working area and hands thoroughly.

_____ Wash dishes, bowls and work area.

_____ Sweep floor.

_____ Take out of oven. Cool. Eat!

Plant Progress

Draw plant leaves in the above space.
Draw the height of the plant in the chart below. Measure with ruler and record actual height.

Day 4 6 8 10 12 14 16 18 20 22 24 26 28 30

Illinois
State Board of Education

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State Board of Education

Donald G. Gill
State Superintendent of Education

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